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This is an alphabetical index of articles and discussions arranged by leading words. It contains occasional cross references. Names of authors and men who discussed the papers are also included. Details of society proceedings, including the titles of papers

read, officers elected, etc., can be located in proceedings under Societies, Editorials, News of the State, Marriages, Deaths. The subjects of editorials also appear alphabetically and are marked (E).

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PRESIDENT, ILLINOIS STATE MEDICAL SOCIETY, 1924-1925

ILLINOIS MEDICAL JOURNAL

THE OFFICIAL ORGAN OF
THE ILLINOIS STATE MEDICAL SOCIETY

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No. 1

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Editorial

A THRILL FOR MEDICAL EARS; DOCTOR TURNED-THE-TRICK

Doctor, did you know that a hard working, pioneer physician in "The ILLINOIS COUNTRY" deftly turned one of the pivotal points of the revolutionary war from British to American Allegiance?

That was the task of Dr. Jean B. Laffont at Post Vincennes working under a commission from Fort Clark.

On July 14, 1778—the day later to be famed in French history as the Independence day of that doughty nation—Dr. Laffont secured a commission from Commander G. R. Clark at "the Fort Clark" to go to "the Post Vincennes" and to accomplish there what had already been done at Kaskaskia, which with Detroit were the other two strategic points held by the British in the old northwest. Moses Henry, an Indian agent, and Father Pierre Gibault, were also of the mission. To secure the allegiance of the white men, and of the Indians, and the possession of King George's stores, were the three sections of this crucial task. Both Henry and Father Gibault ceded to Dr. Laffont the glory of the success of the mission. It was Dr. Laffont, too, who administered the oath of citizenship to the people at Post Vincennes on Sunday, August 8, 1778.

This is only one of hundreds of other interesting steps in the growth of the Illinois country portraying doctors as the "trail-blazer"—telling of their work, their want, their heroism and courage down to the present day. Everything from the earliest period of medical practice in Illinois will be set down in the history of medical practice of Illinois, now being prepared by the committee on medical history under the sponsorship of the Illinois State Medical Society.

Sold on subscription. Order your copy now. Surely you will want to have in your medical li-

brary this written record of the work of your forebears.

Elsewhere in this issue will be found order blank.

The committee on medical history of the Illinois State Medical Society are: O. B. Will, M.D., Peoria; Charles B. Johnson, M.D., Champaign; Carl E. Black, M.D., Jacksonville; George A. Dicus, M.D., Streator; James H. Hutton, M.D., Chicago; Charles J. Whalen, M.D., Chicago, (chairman).

DOCTORS UP-TO-DATE

Community spirit and participation in the body politic should vie with scientific attainments in the working schedule of the up-to-date doctor. Only by assuming these additional burdens, with consequent enlargement of the daily horizon, can the modern physician express his willingness to labor in every way for the general betterment of mankind. To build a finer civilization is the task of all humanitarians, but especially that of the learned professions, and among these, most of all, perhaps, the task of the wise physician. Given a doctor bent upon public welfare as well as upon public health and the community owns a most effective aid towards its higher ideals and actual material profit. A doctor minus this civic sense misses half of his great opportunity.

It is unfortunate indeed, that in all communities, only a comparatively small percentage takes an interest in public affairs and still more unfortunate that among active workers for an improved government, the percentage of doctors is even yet smaller in proportion.

A current and ubiquitous curse is the "let-George-do-it" state of mind. The burdens of progress are borne by a few with injustice from the many. This should not be. Often these altruistic burden-bearers are criticised as "lime-light seekers," "hoggers of glory" and the like. It is well to remember that without these men there would be no "lime-light" and far less "glory," and further, that without the leadership of the overtaxed and over-criticised few, civilization, stagnating, would be as it was half a century ago.

The medical profession must assume civic duties and that without delay. This is a paramount issue of the day. Slackers in this respect must be stricken from our ranks. With such millstones

about our necks, physicians of vision and determination, who are able and willing to lead, are hobbled in their efforts to help humanity. As a duty to themselves, their neighbors and their children, every doctor in the land must do his or her part to further the welfare of his or her community, state and nation. Reader, this means you! Doctor, don't be a slacker, and see that your neighbor isn't either.

MORE STATE MEDICINE IN ILLINOIS

The following from the *Illinois Health News* published by the State Department of Health, June 1924, volume 10, No. 6, News Series, pages 167 and 190, is additional evidence of the attempt by the department to force State Medicine and State Subsidies system upon us.

"The State Department of Public Health, with the assistance of the United States Public Health Service, has undertaken a concerted effort to improve health conditions in the rural districts in the State. The U. S. Public Health Service has loaned the services of Dr. Thomas Parran to work with the state and county authorities in this undertaking.

"Dr. Thomas Parran, past assistant surgeon of the U. S. Public Health Service, has been appointed as director of county health work for the Illinois State Department of Public Health. Dr. Parran will work under the direction of the State Department of Public Health, but will receive no compensation from the State."

Dr. Parran, we are informed, is an enthusiastic advocate of co-operation with the maternity act.

President Calvin Coolidge and Major-General Dawes, Republican nominee for Vice-President, are both enthusiastically opposed to the state subsidy system of government and it is very likely that the medical profession will soon undergo the pleasant experience of seeing some of the state subsidy and other menacing systems of government advocates draw in their horns or be separated from the pay-roll.

MEDICAL CHARLATANS HAVE ALWAYS BEEN WITH US; HUMAN NATURE DOES NOT CHANGE

In the research for medical data pertaining to the early history of practice in Illinois, the committee on medical history has its attention called to the following from "The Jesuit Relations"

(seventy-two volumes) published by the Historical Society of Wisconsin. This work, it seems, is the chief source for the first chapter in the history of any part of our country that was once in new France. This work is replete with reference to medical matters. In speaking of the civilization the missionaries strove to build up among the aborigines, thus we find, in a list of sundries which Father James Gravier sends for, from Kaskaskia, "one syringe, one livre of teriac, ointment, plasters, alum, vitriol, aniseed, medicines, and pastils; also "six bars of soap." Father Gabriel Marest writes exultantly from the same mission, November 12, 1712, "the care we have ourselves taken of the sick and the remedies we give them, which effect the cure of most persons, *have ruined the credit and reputations of the charlatans, and forced them to go and settle elsewhere.*"

THE A. M. A. MEETING AT CHICAGO

The seventy-fifth annual session of the American Medical Association at Chicago had a registration of nearly 8,000 physicians, the largest in the history of the organization.

Many doctors from foreign countries registered at the meeting. There were doctors from Glasgow, Brussels and Budapest as well as from Hyderabad and Assam; from Peking and Tokyo. We will have more to say about the meeting in the August issue.

THE CHANGE IN THE A. M. A. OFFICIAL FAMILY

At the Chicago meeting of the national organization several changes of vital importance took place in the A. M. A. official family. Dr. Simmons resigned as editor; Drs. Billings and Phillips retired as trustees.

J. H. Walsh, M.D., of Chicago, was elected to fill the Billings vacancy and Edward B. Heckel, M.D., of Pittsburgh was elected to succeed Dr. Phillips.

Dr. Walsh is well and favorably known to every doctor in Illinois. His unquestioned integrity and charming personality have attracted to him a host of admiring friends. Dr. Walsh has held many positions of trust in civil life as well as in the Chicago Medical and the Illinois State Medical Societies. For four years he was trustee of the School Board of the City of Chicago. In his position as trustee of the school

board, he was responsible for the expenditure of about sixty million dollars annually. He has held nearly all offices of both the Chicago Medical and the Illinois State Medical Societies. In every position of trust he has acquitted himself with credit both to himself and the organization he represented. Dr. Walsh is in touch and in sympathy with the aims and needs of the profes-



J. H. Walsh, M. D.

The New Local Trustee of the American Medical Association

sion. We bespeak for the new trustee a popular and successful administration of the affairs of the American Medical Association.

Dr. Heckel, like our local trustee, comes to his new position with the recommendation of his state delegates. Those who have worked with him for years are loudest in his praise. Like Dr. Walsh, he is familiar with the needs of the profession and is anxious to help solve the menacing problems before us. In commenting upon the fitness of Dr. Heckel for the position of local trustee, the editor can no more forcibly express his fitness for the trusteeship than by quoting one of the most active members of the medical profession in the State of Pennsylvania: "I have

never known a physician to be more faithful in attendance upon scientific meetings and more interested in the programs in the county medical society and the academy of medicine. He has been just as faithful in his work with the medical society in the state of Pennsylvania, and all other medical organizations with which he is connected. He has splendid executive ability. He is especially well trained in the study of English and as a parliamentarian and will be found broad enough, I am sure, to represent faithfully the best interests of the majority of the members of the American Medical Association, regardless of geographical location."

HOW OFFICERS OF COUNTY MEDICAL
SOCIETIES CAN HELP BRING OUT
THE MEDICAL HISTORY OF
THE RESPECTIVE COUNTIES
SUGGESTED PROGRAM FOR HISTORICAL
REVIEW MEETING
————— COUNTY MEDICAL SOCIETY
(To be as early as possible)

Subject to such changes as the local society may deem advisable. Combinations of subjects may be necessary but it will be appreciated if all indicated subjects are covered by the essayists.

This program formulated with view to developing facts and information which will be of greatest service in compiling the MEDICAL HISTORY OF ILLINOIS the distribution of which is to be one of the outstanding features of the Diamond Jubilee Meeting of the Illinois State Medical Society.

Immediate assignment of subjects to your members is urged in order that essayists may have ample time for preparation of paper and thus to assure to your county society that notice and credit to which it is rightfully entitled in the Medical History of Illinois. *

COMMITTEE ON MEDICAL HISTORY OF
ILLINOIS.

Address: 6244 N. Campbell Ave., Chicago, Ill.

SUGGESTED SUBJECTS

"BRIEF HISTORY OF THE ————— COUNTY
MEDICAL SOCIETY"

Including: Date of organization; record of first meeting; charter members; important and interesting extracts from records of subsequent meetings; members who have achieved particular distinction in their profession; notable contributions of the society to community and

professional welfare; officers of society from date of organization to present time, etc., etc.

"THE PIONEER PHYSICIANS OF ————— COUNTY"

Story of the medical men of the earliest days in Illinois history; who they were; where they came from; their perils, burdens and triumphs; methods and modes of practice; days of the circuit rider, the "saddlebag doctor," etc., etc.

"THE OLD AND THE NEW: A RECORD OF PROGRESS
IN THE THEORY AND PRACTICE OF MEDICINE"

"SURGERY THEN AND NOW: A RECORD OF PROGRESS
IN SURGICAL PRACTICE"

"GREAT PLAGUES THAT HAVE SWEEPED OUR SECTION"

From the earliest days to the last great pandemic of influenza. What they were, when, their toll in human lives and commercial loss, and important and interesting facts relating to methods of handling treatment, etc., etc.

"DEVELOPMENT OF PUBLIC HEALTH SERVICE AND
SANITATION IN ————— COUNTY"

Earliest official regulations, what they were and when and by whom enacted or promulgated; development of official health organizations, their duties, their chief officer, from earliest days to present time; development of non-official or volunteer health agencies, their aims, purposes, accomplishments and outstanding personnel; important sanitary installations, with results; state, municipal and county legislation and institutions; present measures for protection of water supplies, milk supplies, food supplies, control of communicable diseases, etc., etc.

"OUR PHYSICIANS IN WAR SERVICE"

The war of the Revolution
The war of 1812
The war of the Rebellion
The Mexican war
The Indian wars
The Spanish American war
The Great World war

"A RECORD OF HOSPITALS AND DISPENSARY DE-
VELOPMENT IN ————— COUNTY"

With a complete list of public and private hospitals, dispensaries, etc., location, date of their organization, public or private, present capacity, character cases received, name of chief officer or superintendent at present time.

"NOTABLE ACHIEVEMENTS OF OUR PHYSICIANS IN
OTHER THAN MEDICAL FIELDS"

Local physicians who have distinguished themselves in commerce, industry, science, art,

literature, oratory, legislature, military or other public service, etc., etc., who they are and what service rendered, etc.

"ALLIED PROFESSIONS AND THEIR RECORDS OF
PROGRESS IN ——— COUNTY"

- (a) The Dental Profession
- (b) The Pharmaceutical Profession
- (c) The Nursing Profession

The three subjects may be assigned to members of respective professions.

"CULTS AND QUACKS WE HAVE MET—FROM
'VOODOO' TO 'ABRAMS'"

Chronological record of coming and passing of the various cults; their peculiar ideas and practices; an estimate of their effect upon community health and welfare; and if possible a list of present day irregular practitioners and institutions with locations.

"I REMEMBER WAY BACK WHEN"

Series of Five Minute Talks by the older practitioners and if deemed advisable by the old residents, other than physicians.

PRESENT DAY TENDENCIES IN OFFICIAL AND UN-
OFFICIAL HEALTH ACTIVITIES THAT MEN-
ACE PUBLIC AND PROFESSIONAL WELFARE:

Centralization of health control in federal and state governments; evils of federal and state aid; indiscriminate, free medical treatment; legislative enactments that hamper needed treatment and needlessly harass the physician and endanger the sick; unnecessary and unwarranted interference in private cases by official and unofficial agencies, etc., etc.

DR. HAVEN EMERSON ACCUSED OF
MUCK - RAKING

THAT MUCK-RAKING "SURVEY" OF THE HEALTH
AGENCIES OF SAN FRANCISCO

The hypercritical, muck-raking, incomplete, inaccurate, in part untruthful, "Survey" report of some 150 printed pages, made by Haven Emerson and Anna C. Phillips, ostensibly for the Council of Social and Health Agencies and Community Chest authorities, is out.

It appears to be typically Emersonian, in that it has already and justly invoked the same sort of resentment from the same groups of service-loving and service-giving citizens and organizations that some of his other "surveys" have called forth.

A reply to this "survey" is already in course of

preparation. It will be published in installments in both CALIFORNIA AND WESTERN MEDICINE and in BETTER HEALTH, and when complete, will be issued in permanent form. This reply will analyze the vicious, exaggerated and, in part, untruthful attack upon the medical profession of California as a whole; our two medical schools; the health authorities; the hospitals; the French and German communities; the Sisters of the Catholic Church, and all others.

The "surveyors'" invidious comparisons with other cities will be accurately analyzed, and the motives behind the survey will receive adequate attention.

The alleged constructive part of the report will be explained, with particular attention to that part of it whereby the Community Chest is urged to become a superdictator in the *administration* of all health functions of the community, instead of a legitimate collecting and allocating body handling public trust funds as there should be. There appears good reason to believe that the Community Chest will refuse its indorsement of many of the statements and recommendations of these imported surveyors, and will rely more upon the opinions of our own physicians and hospital authorities. The attempts to force the hospitals of the city to become contributing tails to certain so-called national associations as a constructive (?) movement, and the drastic criticism of the Council on Medical Education and Hospitals of the A. M. A., will be explained. The reasons why the "surveyors" ignored the medical and hospital organizations of the state after their many years of constructive work ought to be interesting reading.

The definite injury that even the preliminary report of this "survey" caused was reflected in the difficulties connected with raising the budget of the last Community Chest drive. The complete report will further injure the development of an otherwise praiseworthy institution calculated to serve well, provided it stays out of the field of the *administration* of its funds, either by conducting services itself or utilizing arbitrary and dictatorial policies over the hospitals, organizations, and persons whose function is to serve.

The thousand copies of this "survey" would serve best by being collected and burned.—*Cal. and West. Medicine*, June, 1924.

RE-REGISTRATION VS. A RATIONAL METHOD OF DEALING WITH THE CULT PROBLEM

E. MACD. STANTON, M. D.

SCHENECTADY, N. Y.

The following from the press of June 18, is a typical illustration of how not to try to solve the cult problem.

UNION HILL CHIROPRACTOR IS RELEASED FROM JAIL

New York, June 18.—John H. Conover, a chiropractor of Union Hill, N. J., was released from the Hudson county jail at Jersey City yesterday after serving a fifty-day sentence for practicing without a license from the State Medical Board. Addressing a dinner held at Union Hill last night in his honor, he declared he would continue to practice without a license. He said that if he was arrested again he would go back to jail rather than pay a fine. The dinner was preceded by a parade of about 100 automobiles of chiropractors and friends.

Fred T. Knierim, a Staten Island chiropractor, who cared for Conover's patients, has been arrested on a similar charge.

The chiropractors held no parade to advertise the verdict in the Brown vs. Shyne case. The medical profession will do well to study the fundamental differences between these two cases.

The writer wishes to call the attention of the medical profession to the fundamental importance of the Brown vs. Shyne case recently tried in Utica. The verdict in this case was \$10,000 against Chiropractor Shyne for malpractice. This case is important because it gives us the key to the proper solution of the irregular practitioner problem. The judge by his rulings accomplished what the writer has for several years advocated as an amendment to our present medical practice act. If Judge Edgcomb's rulings that "practicing medicine without a license is in itself some evidence of negligence" and that the mere consulting of an licensed practitioner is not in itself contributory negligence on the part of the patient are sustained in the higher courts then the unlicensed practitioner or anyone who attempts to practice medicine in this State without full educational qualifications will at all times be in an almost hopeless position. Whether or not the higher courts sustain Judge Edgcomb this case does serve to show the possibility of making statutory the judge's rulings.

In New York State we have had more than a hundred years of experience in trying to enforce laws of the type of the present law and the recently defeated Carroll-Lattin bill. In all this time there has not been one year or even one week in which such laws have been really enforceable. If we add the similar experience of the remaining 47 states the proven demon-

strated odds against satisfactory enforcement become about 9999 to 1. This is I believe about the odds against us as regards any real show we would get for our money and trouble under a re-registration bill of the recently proposed type.

There is nothing at all surprising about the failure to enforce laws making criminals out of unlicensed healers because such experience is in line with all Anglo-Saxon history and history generally for that matter. Any actual attempt to enforce laws of the Carroll-Lattin type simply makes martyrs of the members of any prosecuted cult. And be it remembered that all records for rapid multiplication and growth under stimulation are held by those subjected to martyr making processes. The reaction of the public to the attempt to enforce such laws as pertain to the cults is too well known for me to need to dwell further on the subject.

If unlicensed irregular practitioners are a menace to the community the damage they do must be represented by specific injuries to individuals. My studies of the problem have led me to the conclusion that about 90 per cent of the actual recorded accomplishments in the discouragement of these practitioners by legal means have been accomplished by actions based on specific injuries to individuals. The recent murder conviction in King's County is an example. From Nebraska, Iowa, California and other sources the malpractice possibilities have been emphasized (See Editorial J. A. M. A., May 17, 1924, and New York State Journal of Medicine, June, 1924, pg 738.) but for some reason in the United States the Medical professions' efforts have been concentrated on the ten per cent and have largely ignored the ninety per cent possibilities.

The idea of placing the irregular practitioner who has not complied with the education requirements for license in a position in which it is practically impossible for him to defend himself in case of a malpractice suite is by no means new. It has I understand been the standard way of dealing with this problem in England for many years. The one man in this State who I believe is best qualified to have an opinion on the subject, namely, Dr. William D. Cutter, formerly Secretary of the Board of Medical Examiners, has for a number of years advocated this method of solving the problem.

Instead of trying to have passed a bill of the Carroll-Lattin type with its obvious dangers to the medical profession and with demonstrated odds of more than 1000 to 1 against its working as regards the cults even if passed I would suggest a simple amendment to be known as Section 174-A of the medical practice act the amendment to read approximately as follows:

No provision of this act shall be construed as in any way preventing an individual who may have been injured as a result of unskilful advice or treatment entering suit for civil damages against a person practicing medicine who has not complied with the requirements for licensure as defined in this act. In case such a suit is instituted against one practicing medicine without a license the fact that the defendant has not complied with the educational and other require-

ments for licensure shall be interpreted as presumptive evidence of negligence on the part of the defendant.

The above proposed amendment will probably need some touching up as to legal phraseology but as worded it will serve to explain the point in question.

The plan above suggested has the following points in its favor:

1st. The enforcement of the penalties on the personal damage basis rests on the only foundation that can always be depended on—Namely, the individual specifically injured. In addition the testimony introducible in malpractice cases, is of a definite, provable type as compared with the vague generalities as to public policy, welfare, etc., on which testimony bearing on the enforcement of the present act must be based.

2nd. The individual defending an action based on a specific injury claim can not raise the martyr cry which has always defeated attempts to enforce the criminal provisions of our medical practice acts.

3rd. The medical profession will be entirely absolved from the responsibility of enforcing this part of the act.

4th. The publicity arising from the type of specific evidence introducible at a malpractice trial is terribly destructive to cult practice generally. The publicity arising from a trial like that just held in Utica will do more to kill the cult locally than could have been accomplished by making martyrs out of all the chiropractors in Utica by putting them in jail for six months or a year.

5th. The plan proposed is absolutely fair and cannot be objected to by the public on the grounds advanced against the bill vetoed by Governor Miller and the recently defeated Carroll-Lattin re-registration bill.

6th. The plan above proposed has nothing to do with re-registration. The plan does not demand that the medical profession of this State donate \$32,000 annually to a State Department having no inherent interest whatsoever in the medical profession. The proposed plan in no way weakens the existing law. It simply makes certain that the malpracticing irregular cannot hide behind the unenforcible criminal provisions of the present law and thus escape the malpractice dangers constantly surrounding him.

7th. What A. B. Palmer, head of the Palmer School of Chiropractic says on the subject is most convincing. He says:

UNIVERSAL CHIROPRACTORS' ASSOCIATION
ONE FOR ALL—ALL FOR ONE

Dear Doctor:

"A jury in Geneva, Nebr., found A. J. Guengerich guilty on a charge of malpractice and assessed \$3,500 damages, while another jury in Brooklyn, N. Y., found Ernest G. J. Meyer guilty of manslaughter and he was given more than a year in Sing Sing. Hubley, of Los Angeles, and Curtis, of Minneapolis, were each sued for \$15,000 on malpractice suits.

"There are malpractice suits now pending that aggregate more than half a million dollars in damages claimed and the air is full of rumors of malpractice suits everywhere. * * * * *

"A malpractice suit, if the defendant is found guilty, means almost certain ruin and is something with which a local attorney, however, good he may be in some other line, finds himself unable to cope. Indeed, the U. C. A. attorney, expert as they are in this line, are often unable to win the decision. * * * * *

"Every Chiropractor who must depend upon a local attorney not only runs a tremendous risk because of an inadequate defense, and because the damages awarded in these cases are enough to completely wipe out his savings. Not only that, but Chiropractic itself is discredited in the mind of the public, and our medical friends advertise these cases and use the verdict to prove how dangerous a practice Chiropractic is. * * * * *

"It is with the idea of getting these boys who are outside the fold to come in, until the storm is over at least, that I am writing to you and asking you to use the enclosed application blank to get any Chiropractor you may know, who is not a member, to join the U. C. A. immediately. * * * * *

"The situation is desperate and in order to come through this battle with as little damage as possible every U. C. A. member should see that every non-U. C. A. member joins at once. The non-U. C. A. member cannot afford to run the risk and the U. C. A. member cannot afford to let him run the risk, for with every conviction every Chiropractor in the community suffers." * * * * *

Chiropractically yours,
Universal Chiropractors' Association,
B. J. PALMER, Ph.C., Secretary.

A LAYMAN'S DEFENSE OF VIVISECTION

Harry C. MacLeod, S. J., in a recent issue of *America*, is worthy of reproduction. It is as follows:

THE MENACE OF VIVISECTION

To the Editor of *AMERICA*:

In the article in *AMERICA* for July 21 on "The Menace of Vivisection," by C. H. Robson, I find the idea expressed throughout that vivisection has done no good. If the writer of that contribution believes that Dr. Hurwitt, in his "vivisection article," did not sufficiently prove his so-called "sweeping statements," then the following data, taken from the Army and the Board of Health reports will substantiate them.

Mr. Robson cited the *Medical Journal* for December, 1922, where Dr. J. Bruce McCreary of the State Department of Health said:

Active as have been our efforts to control diphtheria through laboratory study and diagnosis, isolation of cases and carriers, free anti-toxin and immunization by anti-toxin, the morbidity figures and death rate remain about the same.

To cast no reflection, however, on Dr. J. Bruce McCreary's knowledge, I ask him to recall that the experimentation by vivisection cut the death rate in nineteen European and American cities from 79.9 per 100,000 population in 1894, when anti-toxin

treatment first began, to 19 deaths per 100,000 in 1905, and that since that time the dread of the disease has almost reached its nadir. Again he writes:

What little improvement there has been in the tuberculosis situation has been owing to better housing, education of the public, superior sanitary conditions, open air treatment; vivisectional medicine has given us nothing of the slightest value in cure.

This, however, is rather a sweeping statement and it would seem that the writer forgot that vivisection was the first to discover that tuberculosis was contagious. The famous discovery of Koch has cut down tuberculosis from fifty to thirty per cent. And we might add here the reason for our National Board of Health that has insisted on the sanitary conditions that have been enforced. In 1878, no fewer than 16,000 deaths resulted from yellow fever that was common in the United States at the time, with an economic loss of some \$100,000,000.00. By vivisectional experimentation on dogs the mosquito was found to carry the germs and although Lazear was bitten by one of the mosquitoes and lost his life five days afterwards, Walter Reed perfected the theory and the National Board of Health came into existence.

With regard to typhoid, the German army in the Franco-Prussian War had 73,346 cases, about ten per cent of the average strength. The Civil War army of the Potomac in four years, from July, 1862, to June, 1866, had 57,000 cases and 53,000 deaths. Then vaccine was discovered and perfected by Gaffky in 1884 and further perfected by Widal in 1888, by Write in 1896-1897, and by Major Russel in 1909. Animals were indispensable to the standardization of vaccine. The result was that in the World War the United States army, protected by anti-typhoid vaccine and therefore immunized, had only 3,756 cases. Although the men were billeted in unsanitary conditions that were favorable to the disease, for instance at Chateau-Thierry, where they had to encamp on territory evacuated by the Germans, that was rotten with the dead bodies of horses and men, pools of human waste and myriads of flies, yet of those 3,756 cases which occurred between September, 1917, and May 2, 1919, there were only 213 deaths. If this fact is not a glowing testimony to vivisection I do not know what is.

There are countless other facts which could be set down as triumphs of vivisection, but let these suffice, since Mr. Robson mentioned only the above.

Although vivisection has been vigorously opposed, can the anti-vivisectionalists show any result that has accrued to humanity by their efforts? Nothing can be shown to their advantage. The only positive result they can show is an expenditure of over \$500,000.00 in Great Britain alone to conduct a campaign of abuse and misrepresentation.

I wonder if Mr. Robson should be attacked by diphtheria or lockjaw would he waive all medical knowledge of the cure obtained by vivisection? His first act would be to apply for anti-toxin.

If such men as these would stay the hands of men

who have made abdominal surgery, surgery of the brain, chest, heart, lungs, and aorta possible, who have reduced the death rate in ovariectomy and found a cure and protection for innocent wives and unborn children and for the community at large from syphilis by 606 Salvarsan and 909, and who may in future banish the terrors of infantile paralysis and scarlet fever and measles from our children, and of cancer from the whole human race, if these men hinder such efforts and do all they can to prohibit them, are they to be considered "benefactors of humanity"?

Woodstock.

STATE DENTAL SOCIETY VOTES TO BAR FOREIGN DENTISTS

At the 60th annual meeting of the Illinois State Dental Society held at Springfield, Illinois, May 13-14-15, 1924, the executive council unanimously voted that the Illinois State Dental Society concur in the recommendation of the Illinois State Medical Society as set forth in the following resolutions:

WHEREAS:—As foreign Physicians are now coming to the United States in increasingly large numbers and at once taking State Board Examinations to admit them to the practice of medicine.

That neither by length of residence or desire to obtain the point of view of American Citizens, are they qualified to teach their countrymen whom they will serve, our ideals of sanitation and other attributes of good citizenship.

And in view of the fact that Physicians from the United States are not admitted to licensure in Europe or Great Britain and its possessions, it is neither fair nor good public policy to so admit them.

Be It Resolved: That the Illinois State Medical Society recommend to the Department of Registration and Education that no foreign Physician from any Country not having reciprocity in this matter with the United States, be eligible to take the State Board Examination until he or she has attained full citizenship in the United States.

SCIENTIFICALLY SPEAKING

O chemist of skill, investigate!

Answer this quiz of mine:

I think I know what Carbonate,

But where did Iodine?

—Lehigh Burr.

Illinois State Medical Society

OFFICIAL MINUTES OF THE SEVENTY-FOURTH ANNUAL MEETING

HELD AT SPRINGFIELD, MAY 6-8, 1924

MINUTES OF THE MEETING OF THE HOUSE OF DELEGATES

Tuesday Evening, May 6, 1924

The first session of the House of Delegates of the Illinois State Medical Society was called to order by the President, Dr. E. H. Ochsner, on Tuesday, May 6, 1924, at 9:18 P. M. in the Elks Club, Springfield, Illinois.

The first order of business was the report of the Chairman of the Credentials Committee.

Dr. M. L. Blatt moved that the report be accepted. Motion seconded and carried.

The next order of business was the roll call by the Secretary. He then announced that a quorum was present.

The next order of business was the reading of the minutes of the previous meeting. Dr. Van Derslice moved that the minutes as published in July, 1923, issue of the JOURNAL be accepted as the official minutes. Motion seconded and carried.

The next order of business was the report of the Secretary.

SECRETARY'S REPORT

Gentlemen of the "House of Delegates":

Your Secretary reports the collection of the following sums from all sources, for the balance of the year 1923 and for the first four months of 1924. The first figure read being for the May-December period of 1923, and the second for the first four months of the current year:

	1923	1924
Adams	\$ 280.00	\$ 415.00
Alexander	10.00	95.00
Bond .....	.....	65.00
Boone	75.00	70.00
Bureau	50.00	105.00
Carroll	85.00	65.00
Cook	2,200.00	10,000.00
Crawford	50.00	65.00
Cass	85.00	.....
Champaign	75.00	5.00
Christian	185.00	.....
Clark	35.00	.....
Coles-Cumberland	28.00	180.00
Clay	30.00	5.00
Clinton	65.00	40.00
DeKalb	57.50	65.00
DeWitt	50.00	75.00
Douglas	25.00	75.00
DuPage	155.00	170.00
Edgar	15.00	95.00
Edwards	25.00	25.00
Effingham	135.00	110.00
Fayette	10.00	.....
Ford	20.00	.....
Franklin	75.00	.....
Fulton	85.00	100.00
Gallatin .....	.....	25.00
Greene	135.00	140.00
Grundy	5.00	.....
Hamilton	10.00	.....
Hancock	25.00	105.00
Henry	145.00	185.00

	1923	1924
Henderson .....	.....	50.00
Iroquois .....	.....	100.00
Jackson	5.00	95.00
Jasper	5.00	.....
Jefferson	15.00	.....
Jersey	35.00	.....
Jo Daviess	59.50	70.00
Johnson	20.00	.....
Kane	120.00	415.00
Kankakee	220.00	.....
Knox	65.00	165.00
Lake	140.00	65.00
La Salle	185.00	250.00
Lawrence	95.00	55.00
Lee	120.00	.....
Livingston	177.50	.....
Logan	150.00	70.00
McDonough	35.00	.....
McHenry	25.00	.....
McLean	113.50	240.00
Macon	35.00	.....
Macoupin	170.00	125.00
Madison	40.00	440.00
Marion	65.00	20.00
Mason	5.00	70.00
Massac	80.00	.....
Menard	45.00	.....
Mercer .....	.....	90.00
Monroe .....	.....	15.00
Montgomery	60.00	70.00
Morgan	255.00	.....
Moultrie	55.00	.....
Ogle	110.00	10.00
Peoria	640.00	20.00
Perry	105.00	.....
Pike	152.50	45.00
Pulaski	20.00	.....
Randolph .....	.....	100.00
Richland	5.00	60.00
Rock Island .....	.....	435.00
St. Clair	530.00	2.50
Sangamon	115.00	635.00
Schuyler .....	.....	40.00
Shelby	15.00	65.00
Stark	60.00	55.00
Stephenson	220.00	.....
Tazewell	65.00	100.00
Wabash	50.00	5.00
Vermilion	35.00	525.00
Warren	115.00	90.00
Wayne .....	.....	85.00
White	80.00	70.00
Will	5.00	.....
Winnebago	480.00	15.00
Woodford	5.00	80.00
Union	61.50	85.00
Whiteside	160.00	.....
Saline	60.00	.....
Williamson .....	.....	155.00
Exhibits	897.50	750.00
Subscriptions	119.50	105.00
	\$18,217.50	\$10,727.00

The figures reported as of May-December, 1923, when added to the several receipts reported to the 1923 House of Delegates and covering the first four months of 1923, make the totals for the 1923 fiscal year:

Receipts from County Societies	\$40,467.00
Subscriptions	280.60
Exhibits	1,947.50

\$42,695.10

Members in good standing, May 15th, 1923.... 6,840

Members dropped:

Death	88
Resigned	40
Removal	87
Non-payment	603

818

6,022

New Members 298 |

Members Reinstated 92 |

Total Membership, May 6, 1924..... 6,412

During the fiscal year 1923, 238 voucher checks were drawn for a total of \$47,082.14, divided as follows: General expense, which includes publishing the Journal, \$30,818.35; Medico-Legal, \$10,166.83; Legislative, \$6,096.96.

An Auditor's report in the making is held up at the present time, pending change in the Secretaryship of the Society, in order that the report may be up to date at the time of transfer. This report from Fred N. Setterdahl & Company, Public Accounts of Rock Island, has progressed sufficiently that it may be brought up to date and submitted to the Council at its June meeting.

The per capita tax of \$5.00 has been adequate for operation during the year and is recommended for continuance.

The Secretary in retiring, wishes to make expression of pleasure in Society relationships and in particular appreciation of the spirit of cordial co-operation which has been uniform among the officers of the Society.

Respectfully submitted,
WM. D. CHAPMAN,
Secretary.

It was moved that the report be accepted.
Motion seconded and carried.

The next order of business was the report of the Chairman of the Council by Dr. C. S. Nelson, Springfield.

REPORT OF THE CHAIRMAN OF THE COUNCIL

To the President and House of Delegates, Illinois State Medical Society:

During my eleven years as a Councilor, I have naturally kept close observation on organized medicine, and it has been gratifying to see the progress made along these lines. The past year has been one of unusual harmony and good feeling, not alone in the Council, but in the Illinois State Medical Society in general.

The past year has been an "off" year in legislative matters, so the Council has not had much business in this line, except what has come from Washington. Several times the Council has been appealed to to lend their efforts toward combating vicious legislation in congress, affecting the medical profession. This we have done to the best of our ability, but with what success, can only be determined later.

Organized medicine was particularly fortunate compared with other states, in securing some good legislation and defeating vicious measures at the last session of the legislature. We succeeded in having passed a very satisfactory medical practice act. We again succeeded in defeating the Maternity bill, and also the Chiropractic bill. These are deeds for congratulations, but not one to inspire overconfidence. Already rumblings are heard in the distance, which is a foreboding of the storm we may expect at the next session of the legislature, when a rain of bills,

maternity, chiropractor, osteopathy and other cults will descend on the legislature, with a horde of high-salaried lobbyists to furnish the thunder. It is again up to organized medicine whether these cults will meet with the same fate, or whether they will be successful as in some other states. If the members of the Illinois State Medical Society were as firmly cemented together as the members of the different cult organizations, I feel we would have nothing to fear, but as long as there is a condition of apathy, and the great majority of the members rely on a small minority fighting their battles, there is grave danger of our rights being encroached upon, and public health menaced, even if the general public does not realize it.

There is another matter to which the attention of the Council has been called during the past year. This is the growing tendency of lay organizations to assume control of health organizations; hiring physicians to take charge of clinics under their supervision, and otherwise assuming responsibilities for the health and care of the unfortunate afflicted, that rightfully belong to organized medicine. We do not criticize the motive of some of these organizations and believe them to be altruistic, but we do deny that their judgment of the qualifications of a physician, or the management of these clinics can equal those of the regular medical profession. The Council believes that all clinics held in a county should be under the supervision of the county society, especially in those counties where an active county medical society exists, and if there are any counties in Illinois where no active county medical society exists, there should be. In a great many of our larger county medical societies, it is becoming a custom to hold regular monthly clinics, and in these societies you will usually find two or more who are giving their attention to special work, and is it not common sense to believe that the afflicted could get better treatment where they could get the benefit of consultation of these specialists, than they would likely get from one man employed by these lay organizations, whose minds may be warped by a man's ability to get himself before the public eye by some other means than his professional skill? The Council have also expressed themselves as being opposed to the unrestricted advertisement of "free clinics." I don't think it can be truthfully said, that anyone ever suffered for the want of medical attention on account of their inability to pay. No profession has the amount of charity placed to their credit that the medical profession has. This includes active and sometimes laborious service, to say nothing of the invaluable services rendered the general public through their teaching of preventive medicine. Considering these facts, is it not a gross injustice to the medical profession to have lay organizations advertise free clinics to rich and poor alike? I can plainly foresee that this policy will have a tendency to pauperize the public, discourage activity in medical research and progressive medicine, with the result, that the patrons of these clinics in the future would be served with less efficiency and with less devotion, than they otherwise

would if these clinics were conducted and supervised by the regular medical organizations.

The committee on publicity appointed by your chairman, have been working diligently during the past year, but as the work is something new, it has necessarily been a little slow, but the reports made to the Council from time to time have been very gratifying, and show they have been feeling their way carefully to avoid pitfalls that they were liable to encounter. They have finally decided to employ Miss Keller to manage the publicity campaign, and I believe they were fortunate in securing the services of Miss Keller, as she is an expert and enjoys an enviable reputation in this line of work, and I think you will have an opportunity during this meeting to hear her explain and outline some of the work she expects to do.

In conclusion I wish to thank my co-workers in the Council for their kindly support, and also the secretaries of the different county societies with whom I have had business, for their courtesy and promptness.

Respectfully submitted,

C. S. NELSON,
Chairman of the Council.

The next order of business was the report of the Treasurer, Dr. A. J. Markley.

TREASURER'S REPORT

May 20, 1923, to May 5, 1924

May 20, 1923, Balance..	\$18,819.41	\$ 9,772.45	\$12,747.63
Received from Secretary	14,320.00	7,542.90	5,028.60
Received from Journal.	13,000.00	.....	.....

Total	\$46,139.41	\$17,315.35	\$17,776.23
Vouchers cashed	30,120.08	10,693.44	5,777.75

Balance on hand....	\$16,019.33	\$ 6,621.91	\$11,998.48
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A. J. MARKLEY,
Treasurer.

The next order of business was the report of the Councilors. Dr. D. B. Penniman reported for the First District as follows:

COUNCILOR REPORT, FIRST DISTRICT

The First District can report progress. Every county in this District has held meetings. Some of them have but few members, twenty or twenty-five. It is difficult for the members to get together so that four meetings a year are about as many as counties with small memberships can hold. We have had one very definite feature. A number of the counties have held picnics in the summer which were very enjoyable. The wives and children of the members have attended and we have had speakers from the city. Some points of interest have been carried home. Some of our larger counties have held very good meetings. Stephenson has held four very good meetings and some of the other counties have had six. Winnebago has rather outdone this—we have had meetings every two weeks. At every other meeting we have a speaker

from outside. Some of the old troubles we used to have thirty years ago are forgotten, partly because we are willing to lay down the hatchet and partly because some of them have been buried. The younger men come to the county meetings very willingly and we believe that the spirit of harmony is growing with us. We think we can say we are making progress.

Dr. E. E. Perisho reported for the Second District as follows:

COUNCILOR REPORT, SECOND DISTRICT

I wish to report that the Second District is very well organized and doing good work. I have visited Whiteside, Lee, Bureau, La Salle, Woodford and Livingston Counties and find them holding regular meetings and well organized. I have four counties in my district, namely Kendall, Grundy, Putnam and Marshall, that are not organized as they should be, because of the counties being small, no large towns, and there are but few physicians scattered over the counties and no central location in which to hold meetings. So the doctors find it quite difficult to get enough out to hold a meeting. The most of the physicians in these counties belong to societies of the adjoining counties. Kendall and Grundy have an organization of their own but is not very active.

I have attended every councilor meeting excepting the January meeting, and have done a great deal of propaganda work by letter and telephone and personal detail work pertaining to the Legislative, Educational Campaign and Medical Organization in general.

Respectfully submitted by

E. E. PERISHO,
Councilor, Second District.

Dr. S. J. McNeill reported for the Third District as follows:

COUNCILOR REPORT, THIRD DISTRICT

The Third Councilor District of the Illinois State Medical Society comprises Lake, DuPage, Will, Kankakee and Cook Counties.

The Lake County Medical Society has a membership of sixty in good standing. Three new members and one death this year. Meetings are once a month, alternatively at Waukegan, North Chicago and Niles Center. This society has always been active and surely has had a great fight with the various "Cults"; in the past primary election had to put up a great fight against a Chiropractor trying to get on the ticket for State Representative. This County Medical Society deserves a great deal of credit for the way they pull together in their fights. They have had a little more trouble than the regular County Societies with the irregular practitioners, or so-called "Cult."

The DuPage County Medical Society has a membership of thirty-six in good standing; have taken in five new members this year. Meetings are held once a month; all are of scientific interest to the members. The attendance has been very good all the year. This

Society goes on record as opposed to the Medical Defense Co., that they are insured in against malpractice suits from \$5,000.00 to \$10,000.00, asking them to help out in payment of a settlement of a suit, e. g., a case was settled for \$4,600.00 The Medical Defense Co. paid \$3,000.00 and the Doctor paid \$1,600.00 This kind of practice is what the members of DuPage County Medical Society are much opposed to, and feel the Defense Company should live up to the full protection called for on the face of their policy.

The Will County Medical Society has a membership of fifty in good standing and have taken in six new members. Their meetings are held every Wednesday, at the luncheon, they have had a number of addresses that are of great interest to the members. This Society has always been very active in all Legislative affairs.

The Kankakee County Medical Society has a membership of thirty-five members in good standing; took in three new members. This Society holds regular meetings on the evenings of the second Thursday of each month. The program is entirely educational, consisting usually of an address by some authority upon a subject of profit and interest to the members. This Society desires to go on record as opposed to free unnecessary clinics.

The Chicago Medical Society have, inclusive of its fifteen branches, 3,559 members in good standing, and have taken in 190 new members this years, and lost 38 by death. The main society meets every Wednesday evening on the sixth floor in the Marshall Field Annex Building. They have a very large attendance. The program is comprised of three to five scientific papers which are read and discussed.

The Branch Societies meet once a month and also have their program of scientific papers treated in the same manner as the parent society. The Branch Societies work in conjunction with the Main Society and its standing committees. They publish a monthly Bulletin, which is self-sustaining, and a wonderful help to the members. The Bulletin of the Main Society is published weekly throughout the year and is the Official Bulletin of the Chicago Medical Society. The Editor, Dr. R. R. Ferguson, deserves great credit for his editorials in exposing the wonderful State Street Fake Venereal Clinic, "The Public Health Institute" that is advertising so extensively in the daily papers, which is one of the most rank quack institutions in the city of Chicago, and is supported by some of the big business men of the city, and especially one prominent man who is trying to be elected to the United States Senate.

The membership of each branch is as follows:

North Side Branch.....	395
North Shore Branch.....	542
Evanston Branch.....	171
Northwest Branch.....	312
West Side Branch.....	314
Aux Planes.....	288
Stock Yards Branch.....	130
Douglas Park Branch.....	222
South Side Branch.....	291
South Chicago Branch.....	63
Irving Park Branch.....	142

Calumet Branch.....	39
Chicago Heights Branch.....	43
Jackson Park Branch.....	362

Being Chairman of the Membership Committee of the Chicago Medical Society for the past number of years, it has come to my notice a number of times that there are a large number of Doctors coming from Central Europe, who are getting their certificates to practice medicine without any trouble. Let an American Doctor go to Europe and try to get a certificate to practice medicine. I am afraid he would have to wait a long time and it might be he never would get a certificate to practice. We feel this is unfair to the American physician, and the physicians who are coming from Europe are more of the irregular type and not the best doctors, and will make office visits for fifty cents, and outside calls for seventy-five cents and a dollar. Is that treating the American physician fair "No."

The Council of the Chicago Medical Society is composed of 57 doctors from various branches and 15 doctors are Councilors-at-Large and the outgoing President is Council-at-Large for three years.

The Council meets at the Hamilton Club on the second Tuesday evening of each month, except July, August and September. The President-Elect presides with the Secretary presiding at the Council Meetings.

There are nine Standing Committees that are elected by the Council, which are as follows: Membership Committee, Medico-Legal Committee, Ethical-Relation Committee, Grievance Committee, Milk Commission, Hospital Organization, Physicians Relief Committee, Public Relation and Legislative Committee. All the official business of the Chicago Medical Society is transacted at these meetings.

There is the Doctors' Information Bureau, that has been conducted by the Chicago Medical Society for the patients and doctors without any additional charge to the doctor, which has been in operation for the past two years and is a wonderful success. It would be impossible to be without it, for the convenience it has been to the doctors to be reached by their patients.

At the meeting of the House of Delegates of the Illinois State Medical Society in 1922 in Chicago it was voted to form a Lay-Educational Campaign. At the June meeting of the Illinois State Council, a Committee was appointed as follows: Dr. James H. Hutton, chairman; Dr. C. J. Whalen, Dr. W. D. Chapman and Dr. R. R. Ferguson. This committee did a great deal of hard work without spending but very little money and was very careful whom they employed to do the publicity work. They were very fortunate in getting Miss Buda Carroll Keller to take full charge of the publicity work. Since March 19 Miss Keller has mapped out a schedule in which definite engagements have been made for talks on medical subjects to be presented during the coming year through radio stations, WLS, KYW and WDAP, before the Kiwanis and the Lions Clubs of Illinois, and before the Women's Clubs of the State Federation, and material has been gathered for a series of articles for

national magazines of a very large circulation in the State.

The Illinois State Medical Society should give the committee and Miss Keller all the support they possibly can, as this is the most wonderful work for the medical profession to teach the public and let them know what the medical profession is doing for humanity. I would suggest the committee and Miss Keller be given a vote of thanks for the wonderful work they are doing.

Respectfully submitted,

S. J. McNEILL,
Councilor Third District.

Dr. H. M. Camp reported for the Fourth District as follows:

COUNCILOR REPORT, FOURTH DISTRICT

There has been practically no change in membership in the twelve county medical societies of the Fourth Councilor District during the past year. A few deaths have occurred, a few members have transferred to some other society on account of changing their residence, and to meet this loss there have been new members recruited. The proportion of members to the number of practicing physicians in the district will in our opinion, compare favorably with any other district of the State.

The societies vary in size from 171 members in the largest to nine members in the smallest society. One society meets three times a month, while one meets only once a year. The others vary, some have monthly meetings, others quarterly and one or two, semi-annually. We still believe that every society to be of greatest benefit to its membership, should meet at least once a month. Road and weather conditions modify the attendance and interest in many of the meetings.

The Peoria City Medical Society has instituted a new scheme in a monthly "Clinic Day," held at the various hospitals, consisting of presentation of cases, surgical operations, etc., in the morning, class room studies in the afternoon, and in the evening, papers by visiting specialists. Many other societies no doubt will watch with interest the results of this plan. The Peoria Society invites all interested physicians to attend the meetings at any time.

The question of dues has been discussed by most of the societies during the past year. A number of societies have annual dues of \$10.00 which seem to be entirely adequate to insure good meetings. One society has annual dues of \$8.00, several \$7.00 or \$7.50, and one or two \$6.00. One society of the district charges only the five dollars which goes to the state society, depending on a special levy to meet expenses. In order to maintain a good live society, and to have interesting meetings, the treasury should have a surplus at all times, and we have therefore recommended to all societies visited where the dues seemed inadequate, a minimum of \$7.50 or \$8.00 annual dues.

Each member of the county medical society should consider himself a committee of one to try and im-

prove the membership, by showing the non-members the advantages of being within the society. This should not really be difficult when we consider the benefits gained through membership. The JOURNAL alone is well worth the cost of membership, and with the protective feature, the new educational program now being launched, along with the many advantages gained through the association with other physicians in meetings should be sufficient to convince the most arbitrary that they should belong to the society.

Of all large state societies, Illinois leads in membership in proportion to the practicing physicians of the state. We have approximately 76 per cent of all eligible physicians within the society. New York has slightly less than one-half, while Pennsylvania and Ohio trail considerably behind us. With the co-operation of all members of the Illinois State Medical Society, it is our opinion that this percentage can and should be increased within the next year—the seventy-fifth anniversary of the formation of the society.

HAROLD M. CAMP, M. D.,
Councilor Fourth District

Dr. C. S. Nelson reported for the Fifth District as follows:

COUNCILOR REPORT, FIFTH DISTRICT

The report does not vary much except I am glad to say that there is continued improvement which in some cases is quite marked. The larger societies show quite a degree of stimulation and interest. In proportion to the increased interest in some of the larger societies the smaller ones seem to suffer. Sangamon County has established monthly clinical meetings which attract quite a number of physicians from a distance. While we encourage them, I still try to encourage the doctors in each District to take an active interest in their own county. In the rural districts where they live quite a distance from their meeting place when the roads are bad I can plainly see that it is very hard to get them out. On the whole, I am glad to say that the Fifth District is in good condition. I have had four deaths reported and a little increase in the membership. We cannot expect very much for the reason that there are very few physicians in the Fifth District who are reputable who are not members of their county society.

Dr. H. P. Beirne reported for the Sixth District as follows:

COUNCILOR REPORT, SIXTH DISTRICT

The Sixth District comprises that part of Illinois south of Adams County to Madison County and lies in or near the district between the Illinois and Mississippi Rivers.

Nearly all the counties are organized, holding meetings monthly or quarterly. The interest of the individual members in their Society is excellent, and highly gratifying. One county, Adams, had two damage suits filed against members but we won both suits, the judge taking the cases out of the hands of the

jury. An interesting point of law was brought out by the counsel for our Society, which in substance was this: You cannot convict a doctor for malpractice unless you have evidence against him furnished by another physician from the same school; in other words, a homeopath could not testify or qualify to testify against a regular physician because he was trained in a different school of thought.

A few deaths have occurred among the profession. Included in this list are Dr. Dalton, one of the oldest practitioners in Macoupin County. Dr. Dalton was a faithful attendant at the meetings of his county society, and Dr. J. H. Rice of Adams County passed away since our meeting a year ago. Dr. Rice was an active member of organized medicine, took a great interest in our state medical affairs, and was a faithful attendant at our state meetings. In our thoughtful consideration of the scientific and economic side of our profession, we must not forget the memory of those who have passed on, who contributed their time and talents to further the interests of organized medicine.

H. P. BEIRNE,

Councilor Sixth District.

Dr. L. O. Frech reported for the Seventh District as follows:

COUNCILOR REPORT, SEVENTH DISTRICT

In making up my report of the medical activities of the various component societies of the seventh councilor district for the fiscal year just ending, a questionnaire was mailed to the secretary of each society, for definite information regarding his society. The secretaries of eight of the county societies were courteous enough to supply the information needed and thereby showed a thorough willingness to co-operate. Four counties were not heard from and for these I have no report.

The following letter was sent to the secretaries:

"Relative to the coming meeting of the Illinois State Meeting at Springfield, May 6, 7 and 8, I would greatly appreciate your annual report on the activities of the County Medical Society during the past year.

It is a difficult matter for your Councilor to give a report on the various component societies unless the secretaries of the societies co-operate in the way of furnishing proper information.

What I desire in the way of information is the following:

1. Number of meetings the past year.
2. Attendance, average, at meetings.
3. Total membership at present.
4. Total membership previous year.
5. New members past year, transfer and otherwise.
6. Number of members lost during the past year.
7. Number of programs in which outside talent employed.
8. Amount of legislative work done.
9. Amount of general interest displayed by the membership.

10. Number of medico-legal cases.
 11. Whether or not you consider your society a live issue.
 12. Prospects for the coming year.
- Please, Doctor, mail me this information immediately so that I may give an intelligent report to the House of Delegates on your society.

I do not want to embarrass your delegate."

The following was the report by societies:

CLAY COUNTY

1. Eight.
2. Seven and three-eighths per cent.
3. One.
4. Not given.
5. One.
6. Two.
7. Two.
8. None.
9. No answer.
10. None.
11. Yes.
12. Good.

EFFINGHAM COUNTY

1. Twelve.
2. Eleven.
3. Twenty-seven.
4. Twenty-five.
5. Two.
6. None.
7. Four.
8. About one-half the members are actively interested in the welfare of the society.
9. None.
10. None.
11. Yes.
12. Good.

PIATT COUNTY

1. Ten.
2. Seventy-five per cent.
3. Twelve.
4. Thirteen.
5. None.
6. One.
7. Ten.
8. Considerable interest.
9. Active part in seeing our representatives and senators pertaining to Medical Legislation up before the Illinois General Assembly or the National Congress.
10. One threatened and dropped. None to trial.
11. We consider our society a live issue.
12. Fully as bright as the past year.

Secretary's Comment—I might comment that our most interesting meeting of the entire year was our last one. This was not a scientific meeting, but was a report from our Councilor as to what the State Medical Society has been doing and had accomplished during the past year.

BOND COUNTY

1. Four.
2. Seven.
3. Thirteen.
4. Fourteen.
5. None.
6. One by transfer.
7. Two.
8. Average.
9. Very little.
10. None.
11. Average.
12. Average.

Secretary's Comment—I did not make a report as there is very little new to report. Our Clinton County Medical Society is very much as it has been for several years. Out of a total of 18 physicians in the County we have a membership of 13, or all but five—of these five non-members two have about returned, so we really have about 85 per cent of membership in the county.

SHELBY COUNTY

1. Four.
2. Seven.
3. Twelve.
4. Thirteen.
5. Two.
6. Four.
7. None.
8. Very little.
9. None.
10. None.
11. No.
12. Fair.

CHRISTIAN COUNTY

1. Two.
2. Twenty.
3. Have not all paid their dues but will.
4. Thirty-seven.
5. We have had but one application. He was voted into membership on his application. He did not pay his dues and later sent me his transfer card and can not be voted in on this until our next meeting in July.
6. One.
7. Two.
8. Better than for few years past. We are getting back to the old time good meetings.
9. None so far. Some personal work by the secretary.
10. None. One threatened but dropped.
11. Fair or better than average.
12. Good.

DECATUR OR MACON COUNTY

1. Twenty-four.
2. Thirty.
3. Ninety-three.
4. One hundred.
5. Three.

6. Ten.
7. Five.
8. Only fair.
9. Legislative Committee has been on the job all the time. Candidates endorsed were nominated. Letters written all state nominees, to women's and other clubs regarding Sheppard-Towner Bill.
10. Two.
11. At this time I consider the Macon County Medical Society a very live issue.
12. Very bright.

SUMMARY FOR EIGHT SOCIETIES

	Total	Average
1. Number of meetings the past year—8-12-10-2-4-4-2-24	66	8 $\frac{1}{4}$
2. Attendance, average, at meetings—7-11-9-4-7-7-20-30	95	12
3. Total membership at present—7-27-12-13-13-12-37-93	214	26 $\frac{3}{4}$
4. Total membership previous year—7-25-13-13-14-13-37-100 ...	222	28
5. New members past year, transfer and otherwise—1-2-0-0-0-2-1-3	9	1+
6. No. of members lost during past year—2-0-1-0-4-4-1-10...	19	2 $\frac{3}{8}$
7. No. of programs in which outside talent was used—2-4-10-7-2-0-2-5	32	4
8. Amount of general interest by membership — A-F-G-N-A-N-G-F	Lack of Int. V. Little	
9. Amount of legislative work done—N-N-Y-N-N-N-N-Y..	None	V. Little
10. No. of Medico-Legal cases—N-N-N-N-N-N-N-2	2	.25
11. Whether you consider your society a live issue—Y-Y-Y-N-A-N-Y-Y	Average	Fair
12. Prospects for the coming year—G-G-G-P-A-F-G-G	Good F. Good	

A—Average.
F—Fair.
G—Good.
N—No or None.
Y—Yes.
P—Poor.

I feel that the preceding data gives us a fairly good insight into the real status of medical affairs not only in Councilor district No. 7, but also in the State of Illinois, for I am firmly convinced that statistics from other districts will show like condition existing therein.

I am not producing this data to belittle our district but to show the great lack of progressiveness that exists generally in our state and component societies. I am using this data as a background for comparison in the future.

This report shows that we have several excellent

societies, a few fair ones and, unfortunately, some that are nonentities.

In some cases, I am convinced, the trouble is with the secretaries, but in most cases it is with the individual members. Medical conditions, at present, I believe are much better than in times past, and bid fair to progressively improve.

What we need in all the districts is not so much individual efforts but a more united action.

To the various component societies of district No. 7, your Councilor stands ready and is willing to give his time and efforts in any capacity whatsoever that is for the betterment of medicine, as a science, a business, or an organization.

Counties not reporting are Fayette, Moultrie, Marion and Montgomery.

Respectfully submitted,

L. O. FRÉCH, M. D.,
Councilor Seventh District.

Dr. G. B. Dudley reported for the Eighth District as follows:

COUNCILOR REPORT, EIGHTH DISTRICT

In the larger counties meetings are held regularly and they are good live ones. These meetings are also attended by the membership from the smaller counties. In the smaller counties from one to four meetings a year are held. Some of the counties bring in outside talent for their programs but it does have the effect of weakening the smaller societies. We feel very timid about putting on a program in a county with only a few members. So far as the membership is concerned, a high percentage of the reputable men in the counties are members. The membership has not varied very much from year to year.

Dr. Andy Hall reported for the Ninth District as follows:

COUNCILOR REPORT, NINTH DISTRICT

I have visited about six county societies in my district and have kept in pretty close touch with conditions in the other counties. With very few exceptions all the desirable and eligible members of the profession are affiliated with their county societies.

The ethical and professional standard of the physicians in Southern Illinois was never better than it is at the present time. As an organization they are keeping in close touch with the members of their legislature and using their influence when required to prevent any vicious laws that will tend to lower the standard of the profession in this state.

As compared with many other parts of this state, the Osteopaths, Chiropractors, and other irregulars, have made but little progress in gaining the confidence of the public in Southern Illinois.

Faternally,

ANDY HALL,
Councilor Ninth District.

It was moved that the report of the Councilors be accepted. Motion seconded and carried.

Miss Buda Carroll Keller, of the Lay Publicity Bureau, made the following address:

I was so inspired by Dr. Ochsner's speech that I came to this meeting with a great many new ideas. I have been asked by my governing committee to make a report on the things that I have had under observation for a little more than six weeks.

The Illinois State Medical Society for the last five or six years seems to have been suffering from a chronic incoherence. I say incoherence for although your activities have been mentioned in the press of Illinois, although your voices have been heard in the legislative matters of Illinois, although your men have been heard on the radio and although your men have made valuable contacts with the men and women in the different organizations, the people of Illinois still hold a distorted idea of your function.

About a year and a half ago I was employed by Dr. J. H. Hutton, who is now Chairman of the Lay Publicity Committee, to take a survey of the people in the Middle West to find out if there was any necessity for this work. In that survey over 8,000 people were tabulated and in the 7,000 returns there was more or less of a misconception as to just what you were good for. For about six weeks I have been making a survey, more or less incomplete, of 6400 regular practitioners in the state of Illinois and instead of listening to lies about you I have been lining up ways and means to reach the people who tell these lies and give them the facts. I believe this can be done. I have done better than that—I have put the cart before the horse. Believing that some of the physicians of the state of Illinois could give little technical talks, I have committed the Illinois State Medical Society to more than 400 speaking appointments for the coming year. Beginning May 16, WLS, Sears-Roebuck's broadcasting station, will feature the Illinois State Medical Society every Friday from 3:45 to 4:45 P. M. In September we will begin with KYW. We are making arrangements with WMAQ and with W-G-N. We have definite assurance from Mr. Wentworth, Governor of the Illinois-Iowa Kiwanis Clubs, that talks by our members will be given at the Kiwanis Club during the coming year. We have the same assurance from Mr. Melvin Jones of the Lions Club.

There are a number of other organizations where such talks can be given. I have talked to the officers of between 20 and 30 women's clubs and in every instance have obtained an open date on next year's program. In an interview this afternoon with Mrs. G. T. Palmer, President of the Illinois Federation of Women's Clubs, she assured me that our program would be O.K'd at the next meeting. More than 400 talks have been arranged for. I think it can be done. I did not think so six months ago when I accepted this proposition.

I know if I ask you to write papers I will get some of them next week, some of them next month, some next year and some never. However, I believe that if you are willing to take up talks from that, this thing can be put over. Some time during the coming year I will be in your town and will come for an interview or to get whatever you have been able to write down for us. Each talk will be checked back with you to be sure that in making it readable it has not become inaccurate.

We are going to ask you for material. We want every man who can give material on the list of subjects referred to to do so. We want you to furnish us with data. Some of you cannot write so well but you can talk mighty well if something is prepared for you. Every man who is asked to speak will be furnished two weeks before with a complete resume on the subject selected by the governing body. We want people who are willing to talk if they have material handed to them. Most of you who have been in practice have patients who are influential. Give us an opportunity to meet these people. If you are going to make this a proposition that is run by a committee of three or four men it is not going to get very far. If you make it an all-society proposition you are going to do what no other society in America has ever been able to do.

I have been six weeks trying to feel out the press of Illinois. I have been able to find about 150 editors in the state who can use material of some kind or other. Most of that is highly localized. We have magazine contracts with several publications. That does not mean they will print every piece of propaganda that is given to them. We are going to make contracts with organized labor. We are going to get out and talk constructively. We are not going to center

attention on any one man. We are going to center attention on the society. If you want to go through with this thing I have three distinct propositions:

First, I want men who can give us material on the topics about which we have already promised to give talks.

Second, I want men who can give us more marks to shoot at. This list you are getting showing radio talks, talks to men's and women's organizations, show just about one-tenth enough subjects. We should cover a much larger field.

Third, I want men and women who would be willing to talk to those organizations provided a complete abstract is furnished them two weeks in advance of the time they are asked to keep an appointment.

In order to reduce the cost of this proposition why not make an agreement with your sister states, Wisconsin and Iowa?

The next order of business was the report of the Editor, Dr. C. J. Whalen.

REPORT OF THE EDITOR

CHARLES J. WHALEN, M. D.

EDITOR ILLINOIS MEDICAL JOURNAL

This meeting opens the seventy-fifth year of The Illinois State Medical Society and the twenty-sixth year of The ILLINOIS MEDICAL JOURNAL. In the enthusiasm of its members and in the measure of actual time, the Illinois State Medical Society is a youthful organization. Weighed by other balances, both the ILLINOIS MEDICAL JOURNAL and the state society have been aged by experience. Both passed intact through that most troublous period of civilization's history—the World War. Both have fought valiantly and are fighting still to uphold the principles of medical practice and to safeguard the interests of the doctors of this great state. At the outset both society and official organ set themselves the task of upholding ideals of medical integrity, nor has this task been shirked for a single instant. In the fulfillment of this duty the labor involved continues exactly and unremitting, but ample reward exists in the generous appreciation, both individual and collective, of Illinois physicians and surgeons.

Marked success attends the Society's official organ, the ILLINOIS MEDICAL JOURNAL.

New readers and staunch supporters follow in the train of each new volume. Such steady growth brings increased opportunities of serving the profession, and through it the state and nation, and furnishes a source of consolation and courage, deepened again in the knowledge that through genuine merit alone has been attained the ever widening sphere of influence of the ILLINOIS MEDICAL JOURNAL.

It may not be amiss here to borrow the advertising

slogan of a patent baby food and to remark that the ILLINOIS MEDICAL JOURNAL is advertised by its loyal friends. For the only promotion ever given the JOURNAL has been recommendation from those who have knowledge of its content. Those who read and like the JOURNAL, urge their friends to read it, in a sequence substantially flattering to the circulation of the official organ of the Illinois State Medical Society. This is a permanent process, too. Very few who once begin to read this JOURNAL, ever abandon the habit.

An increase in membership of several thousand doctors has been achieved during the few years tenure of the present editor. Many more will be added in the near future, if the hundreds of approbative and eulogistic letters received are a credible index of opinion. For this proof of friendship the editor wishes to record, publicly, profound gratitude. Here is testimony of regard, both in the facile encomiums of words, and in the tangible witness of deeds—both a cause of intense gratification to the editor.

Taking heed from the example his friends have set, he intends by deeds as well as by words, to demonstrate his appreciation. It is too much to hope, of course, that on every occasion and upon every idea, the editor will be able to voice the exact view of each reader of the JOURNAL. Indeed, such unanimity is undesirable, as it would signify merely waning vitality and erect a bar against helpful and constructive discussion.

With courage unabated and spirit undaunted, the editor makes the greatest of possible human promises, under the circumstances, and that is to pledge himself to spare no effort and to exercise all diligence to make the ILLINOIS MEDICAL JOURNAL progressively more worthy of the esteem it has achieved and the support it receives.

Professions can not afford to despise the inventory system of commerce. Glancing at the doctrines that the JOURNAL has stocked within its files it is well to note that the policy of the JOURNAL has been from the first to uphold ethics of the profession, medical standards, and correlatively, the public welfare with a purpose as consistent as the solar system.

The JOURNAL urges organization of doctors as an effective bulwark against political chicanery tending to debauch the rights of the profession, and to demonstrate again that in "Union there is strength" as well as that in the ballot box lies the remedy for malicious and devastating oppression. The JOURNAL urges a lay-education campaign so as to fight with their own fire the cheap but efficacious and well-paid for methods of charlatans whose broadcast misinformation of the public is a direct assault upon the public health. The JOURNAL fights the socialization of medicine and points to Germany and Russia as shining examples of what those systems can do in the way of social, moral and physical destruction. The JOURNAL urges the participation in every dignified, pointed endeavor to place the medical profession in its true light before the general public whose interests are served by medicine as by no other human agency. As the telephone has been

a first aid to medical protection, and the automobile, so too, may the radio be enlisted in the cause of ethical medical propaganda. Glancing back from the realm of possibilities to that of accomplishment what has the Journal done?

As ill-considered legislation has prostituted the protective function that statutes should exercise upon civic welfare and the sanctity of science, in matters pertaining to jurisprudence, the Journal's battle has been waged consistently that:

1. All persons attempting to diagnose and to treat human ailments shall stand equal before the law.

2. All persons attempting to diagnose and to treat human ailments shall submit to the same license requirements upon the point of the fundamental or preliminary educational standard.

All persons seeking a license to diagnose and to treat human ailments, shall be passed upon by the same board and by only one board, as to the fundamental and professional qualifications of such proposed licensees.

4. The state law shall so provide that all persons engaging in the practice of medicine, under any name, whatsoever, shall be denied a license, until these principles have been complied with.

Repeatedly the Journal has called attention to the fact that:

1. Despite strenuous endeavor to keep on the alert as to the status of matters legislative, and even in the face of a degree of progress, the most important work remains to be done, and every doctor in the state faces the necessity for personal labor in a broad field.

2. Each succeeding year sees introduced into the legislature practically the same bills, that, up until the present have not been met with a thoroughly constructive program for their defeat and that until the medical profession organizes into an ironclad battering ram to such an end, those identical cult bills—masterpieces of malfeasance—will recur annually for combat. Those cult bills are cancerous. They need extermination, not palliation.

3. That the men elected to legislative halls must be chosen with care, and given a pre-election education in the aims and desires of the medical profession, as to what is necessary for safeguarding the welfare of the community.

4. That the medical profession must keep in touch with politics since men who promise anything and everything as pre-election vote getting tactics later repudiate these promises, and both before and after election contacts are necessary to the medical profession, if even half-way justice is to be secured.

5. That it is the definite duty of each and every member of the medical profession to realize his or her individual responsibility in regard to legislation that affects the health of the people, and the protection of medical science as a human beneficence.

6. That physicians must establish fluid contact with the members of the legislature; calling upon them often, enlightening them and teaching them the laws that should be enacted in order to defend the health of

their constituents, and to enliven the interests of the lawmakers in the public health question.

Suggestions, criticisms and articles from various county legislative chairmen are desired for publication in the *ILLINOIS MEDICAL JOURNAL*. This will be found effective aid for keeping in touch with men and affairs, and for offsetting objectionable legislation. Unfortunately many of our members are somnolent brothers, content in a feeling of false security, that their individual and scientific interests are safeguarded under the official protection of the organization, and hence, outwardly indifferent to the future, and quiescent as to the present. This "let George do it" spirit is responsible for far more than it is pleasant to consider.

The price of democracy in medicine is organization, eternal vigilance and unending personal effort.

In view of which it is suggested, for the safety of the public health, the future of medicine and the individual interest of every man and women in the medical profession that

1. Each individual member of the profession shall do the hardest work of which he or she is capable in each assembly district for each election, especially in the exercise of the privileges and duties of citizenship to employ every influence possessed and at hand to elect to the legislature men or women who promise to stand for laws and conditions believed to be right and necessary by the medical profession, and this should be done regardless of all party label.

2. That no subject touching on the well-being of the body politic is alien to the physician.

3. That the practice of medicine has emerged from the obscurity of tradition and dogma, as a calling with kinship to all other callings.

4. That medicine is a profession with roots reaching into all strata of society and probing into the bedrock of the nation's social trust.

Therefore, it is quite appropriate to deal here with outstanding features of problems occupying public attention, and which are a menace to the future of medical practice.

First must be realized that

1. When laymen legislate upon health matters, against the views of the medical profession, the invariable result is injustice to the profession and injury to the community. Q. V. The Harrison narcotic law. Witness the absurd incredibility of physicians being told by laymen and laywomen how certain remedies shall be prescribed or administered. Such a principle is utterly wrong. Science is superseded by supposition. Those who know nothing of medical practice nor the science thereof, presume to dictate to those who make the practice of medicine their life study. What could be more absurd?

The Harrison narcotic law is an example of the usual result of lay legislation upon health matters. If, before this law was passed, proper consideration had been given to the opinions of medical men, this law could have been made more effective against criminal practice and at the same time, less inhibitive oppressive to medical practice.

2. This same fundamental error of uncomprehending and ignorant judgment appears in lay legislation concerning state medicine, health centers, health insurance, or whatever name may be employed to express differing forms of the same basic idea.

3. Problems of medical legislation involve innumerable difficulties. Shining from the fogs and obscurities is one luminous angle—that there must be an awakening of the rank and file of the profession to the overhanging dangers that are a powerful and immediate menace. The tomorrow of the procrastinators has arrived and is definitely in our midst. For watchfulness there is no substitute. Too many stay unconcerned until it is too late. Those interests working against the medical profession maintain active lobbies and they are supplied generously with money to spend. The medical profession must remember that its foes never sleep; indifference is not one of the sins of those who are destroying the future of medicine. Unfortunately the medical profession needs to wake up to conditions and to keep awake.

The Illinois State Medical Society has a membership of 8,000 doctors. If the influence of each individual member of this organization is wielded to secure rational legislation, this body of men and women would be a power sufficient to assure the health welfare of the inhabitants of Illinois.

Unfortunately too many physicians pay too little attention to civic affairs. To procure sane and consistent medical as well as proper general legislation, many more doctors will have to hasten to take an active hand in politics.

One of the appalling obstacles that hinder the obtaining of relief from burdens upon the profession is the incomprehensible failure of the individual practitioner to do his civic duty. Too large a percentage of men leave their civic conscience with their medical societies. It is up to the individual practitioner to do certain things for himself and for the profession that nobody else can do for him. The individual practitioner is a man who votes. As such he or she must cease to hesitate to speak up when opportunity offers. Instead each doctor in the state must begin at once to use that individual vote to inform representatives and senators, both state and national, that, as lawmakers, they owe specific duties to the medical profession, and that certain duties that, as lawmakers they owe to the general public, can be discharged to the public, only through the medical profession.

Emphasizing again the code of ideals for which the official organ of the society stands, and the menaces current to the future of medical integrity, the *JOURNAL* is distinctively against:

1. Lay Dictation of Medical Practice, whether by statute or insidious financial "endowment" or "foundation" support.

2. State Medicine.

3. The false promise of "Federal Aid" with its implications of "gifts" from a source that has nothing of its own to give.

4. The Overtrained and Usurping Nurse, embodying the truth of the danger of a "little knowledge."
5. Compulsory Health Insurance.
6. Workman's Compensation.
7. Free Hospitalization and the Maintenance of Indiscriminate Free Clinics.
8. Adoption of Russian ideas in American homes where these ideas appertain to sex license and moral debacle.
9. All catpaws for state subsidies which purport to do exactly what they do not of which the Sheppard-Towner Act is a type.

The ILLINOIS MEDICAL JOURNAL stands equally in favor of:

1. A judicious, skilled campaign of lay education that will bring the public back into close touch and genuine appreciation of the science of medicine. This is one of the day's fundamental tasks for the thinking physician.
2. A continuance of the splendid cooperation among the county societies that has helped the ILLINOIS MEDICAL JOURNAL to wage a good fight against pernicious political influences.
3. Extended organization among physicians until the doctor shall have as much legislative influence as the plumbers' and freight handlers' unions.
4. Faith in the future of medicine and the rank and file who carry on.
5. Adequate pay for adequate service.
6. America for American ideals of cleanliness, wholesomeness, freedom and democracy.
7. The fitting commemoration of next year's seventy-fifth anniversary of the State society.
8. The invasion of public affairs, especially political and public health fields, by members of the medical profession.
9. Infant welfare promotion should be managed by the medical profession and credit for the successful operation of all infant health institutes and baby shows should be given to the physicians who make possible such results rather than to lay publicists as is the case at present. It is high time that the County Medical societies should direct those baby shows, always popular with the public and that are now universally run or dictated by outsiders. Such shows cannot be successful without utilization of the experience possessed by the medical profession and the cooperation of the doctors. The medical profession, rather than a group of laymen, merits and should receive the credits.
10. Loyalty to the ideals that have advanced medicine to the front of progressive sciences.

As a justification for these tenets it may be said that

1. The ILLINOIS MEDICAL JOURNAL continues to be the largest of the State Journals published in the United States.
2. During the past year there were published more than 100,000 copies of the JOURNAL.
3. The size of the Journal was uniformly 128 pages.
4. Throughout the year the average monthly issue of the Journal was 8,000 copies.
5. The ILLINOIS MEDICAL JOURNAL has become a

popular medium for the publication of medical data. Further it is solicited by many of the most prominent medical men in the United States, as a medium for the publication of scientific papers.

6. There is a rapidly increasing international demand for the ILLINOIS MEDICAL JOURNAL, both by subscription and individual copies.

At large the advertising situation showed a general move for retrenchment during the past year, but even in the face of this situation, the past year has brought to the JOURNAL its greatest income for any twelve months of its history. No little persuasion has been a potent factor in the achievement of such a result. In the trend for retrenchment many firms signified a desire to withdraw their advertising from the JOURNAL, but were finally induced to reconsider. In this way many of our old advertisers were persuaded to remain with the JOURNAL. From May 12, 1923, to May 3, 1924, the advertising income of the JOURNAL is the largest it has ever been at any time.

Labor costs show an increase even over the peaks of the war period. Print paper remains the same. Other market conditions veer slightly.

The advertising outlook for the coming year is encouraging almost beyond expectation.

For the past year's great success of the Journal congratulations are due the members of the state society, whose contributions and cooperation are a virile factor in the making of this most influential of state medical journals.

It was moved that the report be accepted. Motion seconded and carried.

The next order of business was the report of the Committee on Medical Legislation. Dr. J. R. Neal reported as follows:

REPORT OF COMMITTEE ON MEDICAL LEGISLATION

"I have no written report due probably to the fact that this is what might be termed the off-season for the Committee. Therefore it seems to me that little good can be obtained from having a standing committee on legislation throughout the year unless we do a little bit at a time when it seems necessary and the time to do that is when the election comes. It is all very well to have a legislative committee who will do what you want at the time the legislature is in session, but if you do not take a proper interest in the election, such as will come this fall, we feel you are waiting too late to find out where we are during the next legislature. It is a very unwise thing for you not to call on the men who are seeking election. It is up to the physicians to go to these men and get election promises. All we want is to have the legislature support decent medical laws and oppose the vicious ones such as came up the last time. I have a letter from a chiropractor in Indiana stating, 'that we are coming into Illinois next legislature to buy the Board of Examiners and that we have

\$55,000 to do so." Unless you look to it we are going to have trouble next year.

Last year I had the pleasure of making a partial report just as the legislature was closing. I want to say that I do not think that it would be fitting to have to wait until the last hours to get the support of the legislators. I am asking you to give some thought to the men who are up for election in your particular districts. I was very much interested in Dr. McNeill's report as to how they handled a certain chiropractor. Dr. Nelson told us last year about the Christian Scientist who was elected coroner of Sangamon County by a small majority. Two weeks ago he ran again and was defeated.

In closing I want to say that unless you individually take specific interest in your local situation as to the type and character of the men you are supporting, your committee will not be able to accomplish much next year. One legislator told me that of 32 doctors in his district only 11 voted and 7 of them voted against him. It does not help us when we are trying to get laws passed for your protection.

It was moved that the report be accepted. Motion seconded and carried.

Dr. Emmet Keating reported for the Public Policy Committee as follows:

REPORT OF COMMITTEE ON PUBLIC POLICY

The work of the Committee on Public Policy for the past year has been individual rather than the result of action taken by the Committee as a whole. Each of its three members has been alert and ready to aid in whatever situations their help has been needed.

In Chicago the Physicians Fellowship Club has given its support to the Public Relations Committee of the Chicago Medical Society and has made its programs available to that Committee for its educational work.

The Committee on Public Policy has recently held two meetings as a result of several complaints from members of the State Society relative to the plan of the exchange of internes between hospitals in the United States and foreign countries.

The complainants also protested against admitting to practice in this country physicians from foreign countries, who come here, pass the examinations of the State Boards and are at once allowed to practice.

Some of the hospitals in Chicago at the present time have foreign internes and some have foreign physicians upon their staffs or in their employ. These men are placed in our hospitals labeled superior to the American product.

We do not know to what extent the deplorable economic conditions affecting the practice of medicine in Europe has been fostered by deluded, intimidated or self-seeking physicians of those countries. We hear very little about organized opposition on their part to the ruinous policy of state medicine.

If they are satisfied with that sort of thing, then they are dangerous men to bring to this country. Their tendency is apt to be to aid and abet schemes of this kind for the United States.

Physicians from the United States are not admitted to take examinations for the practice of medicine in Europe or any of the possessions of Great Britain. Canadian physicians flock to every state in the union, but men from this country are barred from the practice of medicine in Canada.

I quote from the *Journal A. M. A.* of April 26, 1924.

"Whereas, in earlier years, the foreign physicians coming to the United States were comparatively few, the numbers have been rapidly on the increase since the World War, particularly as concerns physicians from central Europe. While only sixty-seven applied for licensure in 1919, there were 371 in 1923, and reports received since the first of the year show numbers increasing to the proportions of an avalanche. Most of the new arrivals are unable to speak English; many are without friends, and, in some instances, without visible means of support. Among them are also many undesirables, both from the educational and moral standpoint. This country is already oversupplied with physicians, particularly in the large cities where foreign physicians locate and the conditions from overcrowding will be made more serious by this influx from abroad."

In this issue of the JOURNAL is published statistics, carefully classified, of the State Board examinations for 1923.

Last year New York amended its practice act so that it is now necessary for any one to be a United States citizen before being eligible to receive a license to practice medicine. In absence of such requirements Doctor N. P. Colwell, secretary of the Council on Medical Education and Hospitals of the American Medical Association, suggests the following legal safeguards:

1. The requirement that the examination be conducted only in the English language.
2. That no foreigner be admitted to the examination until all items in regard to both preliminary and professional educations be verified by official word received directly from the foreign university from which he claims to have graduated.
3. That through photographs or other means it is proved without doubt that the man who appears before your Board is the same individual who actually took the work and completed the course at the foreign university from which he claims to have graduated.

Dr. M. L. Harris, Chairman of the State Board of Illinois, says: "I look upon the situation as a very serious one. The only positive way of remedying the evil is to have our law amended to limit examinations to American citizens or to at least give the Board some authority in the matter. Several states have already taken such action in order to meet the incoming flood of doctors from foreign countries."

The presence of foreign internes and foreign doctors in our hospitals and the opposition to making citizenship a prerequisite to the taking of a State Board examination, is evidence that part of the medical profession of America is not averse to the present state of affairs.

The Committee on Public Policy invites both sides to present arguments upon this very important subject, that suitable resolutions may be presented to the House of Delegates of the Illinois State Medical Society for adoption or rejection.

Committee:

Emmet Keating, Chairman
Warren Johnson
John F. Sloan

Dr. Keating moved that the suggestion made by the Chair to the effect that this report be turned over to the Resolution Committee for consideration be adopted. Motion seconded and carried.

Dr. C. B. King reported for the Medico-Legal Committees as follows:

REPORT OF MEDICO-LEGAL COMMITTEE

During the year last past, 38 new malpractice suits have been filed; 20 of these in Cook County and 18 in the remainder of the state. During the same period of time, 45 suits were disposed of, 30 in Cook County and 15 in the balance of the state. During the same time record was kept of 49 new claims for malpractice reported against members of the society which were divided 25 from Chicago and 24 from downstate. On May 1, 1923, there were pending 101 suits. On May 1, 1924, there are remaining 94 suits.

Although the total number of suits filed is about the average number recorded for the past six or eight years, the proportionate number filed outside of Cook County has been very much increased and the same holds good as to the proportion of claims reported. It would appear that the damage suit lawyers in the downstate counties are getting more active in taking this class of "so-called business."

Your Committee has had a very strenuous year and has had a number of very expensive lawsuits to care for. Various members of the council have been lending a hand and this has been of material help to the Committee and for it due thanks is given.

One item of protracted litigation in which the expense has not been proportionately heavy because the insurance company has carried the greater part of the burden is the case of Connor vs. Eddy. It was partly tried once, continued and tried again in the Municipal Court of Chicago. At the close of the plaintiff's evidence, the court denied the motion of the defendant to direct a verdict and instead made it appear that there had been an involuntary nonsuit. This would permit a new suit being brought within one year. This the plaintiff promptly did in the Circuit Court of Cook County. That case reached the stage where it was about to be tried and the Municipal Court case was then taken to the Appellate Court on a writ of error and that court has within the past ten days reversed the case with directions to the Municipal Court to enter a judgment for the defendant. It is the statement of the plaintiff's attorneys and that they intend

taking the case to the Supreme Court, if they can. If the Supreme Court does not take the case for them, then we are done with this lawsuit, as the decision just handed down will bar the plaintiff proceeding with the suit pending in the Circuit Court.

One highly expensive suit is the Beckwith case against three doctors, on which trial was had and a judgment entered for \$18,000 against the three doctors. This case is now going to the Appellate Court and we are not through with our expense on it.

The case of Lawson vs. Bigler in Coles County has also been quite expensive. In that case the plaintiff received a verdict for \$4,000.00, and that suit is in the Appellate Court, but until that court makes some disposition of it there will be very little further expense.

A case in Chicago against the former superintendent of the Psychopathic Hospital for supposed malpractice in making an insanity certificate has terminated in favor of the doctor defendant, but two laymen had a judgment entered against them for \$100,000. This case took three weeks to try. The foregoing are the only real expensive cases that we have had during the past year, but there are a few pending on which the cost will also be rather high.

From the conversation of several members, we have assumed that there is the general thought that most members of the Society carry insurance against malpractice actions. Of course, if a doctor does carry such insurance and asks for the help of the Society's defense he is as much entitled to it as a man who does not carry insurance, but it has been the practice of the committee to hold down as closely as possible the expense in such cases and to let the insurance company carry all the expense possible.

During the past sixteen months bills have been paid upon three occasions and consequently the committee can not report exactly for expense during the year. Consequently, report is being made for the sixteen months from January 1, 1923, to May 1, 1924, on attorneys' fees, investigation expense, court reports, transcripts of evidences, printed briefs and abstracts, court costs and similar expense. During the period mentioned, the amounts paid by the Medical Society on suits upon which the physician carried insurance are as follows:

May, 1923	\$ 690.00
January, 1924	1,609.40
May, 1924	715.00

Total for the period on doctors carrying insurance

\$3,014.40

During the same period and at the same time, the Society paid for such expense on suits against doctors who carry no insurance, the following:

May, 1923	\$ 1,440.26
January, 1924	5,091.18
May, 1924	5,709.27

Total period on cases in which doctors carried no insurance

\$12,244.71

In other words, a little over \$4.00 was paid on the cases where no insurance was carried to each dollar on the cases where the doctor carried insurance. Perhaps these proportions are more extreme than they would ordinarily be because of our having had some unusually expensive cases in which the doctor carried no insurance.

The committee has almost uniformly found the members of the Society responding readily when assistance was requested and when the services of members were required.

There have been an increasing number of burn cases, hot water bottle, hot water pad, X-ray and radium.

Of the suits remaining undisposed of on this date, practically half are dormant and are not likely ever to be tried, but even those have caused the doctor most concerned some sleepless nights and unhappy days.

Respectfully submitted,

MEDICO-LEGAL COMMITTEE.

By C. B. King,

Chairman.

It was moved that the report be accepted. Motion seconded and carried.

Under new business the Secretary read a letter from the Board of Directors of the Gorgas Memorial.

My dear Doctor Chapman:

You are undoubtedly aware that our plan to memorialize William Crawford Gorgas was endorsed by the House of Delegates of the American Medical Association at its meeting in San Francisco last year.

Our Illinois Governing Committee is now being organized and in order that the profession in this state may be informed regarding our program and its purposes, I am writing to ask that you have the matter brought before the Illinois State Medical Society at its forthcoming meeting in May, and in the name of the Board of Directors of the Gorgas Memorial, request that the Society as a body, endorse this movement.

We are attempting to perform a big task with the least possible expense and with our very limited field organization, must depend upon our friends for assistance and cooperation. You can appreciate how greatly the endorsement of the state organization will facilitate our organization work.

I am sending you a printed outline of our program and would appreciate your having it read to the members at some convenient time during the meeting. You will also find enclosed a form of resolution which is submitted merely as a suggestion and may be modified as you see fit.

Your cooperation in getting the Gorgas Memorial before the Illinois Medical Society will be greatly appreciated by my associates and myself.

With kind personal regards, I am

Cordially yours,

Franklin Martin,

Chairman Board of Directors.

WHEREAS, The life and achievements of the late William Crawford Gorgas have been to our members an inspiration to service for humanity, and

WHEREAS, The Gorgas Memorial Institute contemplates the establishment in his memory of a living working memorial in the form of:

(a) A Research Institute of Panama, for the study, prevention and cure of tropical diseases, and

(b) The development of a national campaign under the supervision of the scientific medical profession for the purpose of improving and protecting the health of people everywhere.

Therefore, Be It Resolved, in consideration of these facts, the Illinois Medical Society, assembled at its annual convention at Springfield, May 6-8, hereby heartily endorses the plan to memorialize William Crawford Gorgas, in the manner contemplated by the Gorgas Memorial Institute, not only because it will constitute a worthy recognition of the character and achievements of our late colleague, but will be in effect a memorial to the efficiency and importance of medical science in world progress.

The Secretary moved that the proposal be referred to the Resolutions Committee. Motion seconded and carried.

The Secretary read the following resolutions:

1. WHEREAS, at each succeeding session of the Legislature the medical profession is confronted with the problem of attempting to convert members of the House and Senate to a proper appreciation of the need of medical legislation, and

WHEREAS, this condition of affairs is due to imperfect information and inefficient organization of the medical profession in the respective senatorial districts.

Therefore Be It Resolved that this house of delegates recommend to the Council of the State Society that it employ a competent person to assist it in effecting a better organization of the profession to the end that better equipped men and women be sent to the Legislature.

2. WHEREAS, as foreign physicians are now coming to the United States in increasingly large numbers and at once taking State Board Examinations to admit them to the practice of medicine.

That neither by length of residence or desire to obtain the point of view of American citizens, are they qualified to teach their countrymen whom they will serve, our ideals of sanitation and other attributes of good citizenship.

And in view of the fact that physicians from the United States are not admitted to licensure in Europe or Great Britain and its possessions.

it is neither fair nor good public policy to so admit them.

Be It Resolved that the Illinois State Medical Society recommend to the Department of Registration and Education that no foreign physician from any country not having reciprocity in this matter with the United States, be eligible to take the State Board examination until he or she has attained full citizenship of the United States.

It was moved that these resolutions be referred to the Resolutions Committee. Motion seconded and carried.

The Chair appointed the Resolutions Committee consisting of Drs. J. H. Hutton, Mather Pfeifferberger, and H. V. Gould.

Dr. C. P. White, President of the Secretaries Conference, stated that at the meeting of the Conference a resolution was passed asking the House of Delegates to set aside some money to enable the Secretary of the Conference to keep in touch with the Secretaries of the different counties. The resolution was referred to the Resolutions Committee.

On motion duly made, seconded and carried the House of Delegates adjourned at 11:35 to meet again on Thursday morning.

HOUSE OF DELEGATES

Thursday Morning, May 8, 1924

The second session of the House of Delegates was called to order by the President, Dr. E. H. Ochsner, at 8:45, A. M. Thursday, May 8.

The first order of business was the report of the Chairman of the Credentials Committee.

The Secretary called the roll and announced that a quorum was present.

The next order of business was the reading of the minutes of the previous session. Dr. Vander Slice stated that at the previous meeting the House of Delegates neglected to accept the Treasurer's report. He moved that this report be accepted. Motion seconded and carried. With this addition the minutes were approved as read.

The next order of business was the election of officers.

Dr. J. H. Walsh nominated Dr. J. C. Kraft of Chicago for President-Elect. Motion seconded and carried. Dr. Keating moved that the nominations be closed and the Secretary be instructed to cast the ballot for Dr. Krafft as President-Elect. Motion seconded and carried. The Sec-

retary cast the ballot and the Chair declared Dr. Krafft elected.

Dr. H. M. Camp nominated Dr. J. R. Neal, Springfield, for First Vice-President. Motion seconded and carried. Dr. Pfeifferberger moved that the nominations be closed and the Secretary be instructed to cast the ballot for Dr. J. R. Neal as First Vice-President. Motion seconded and carried. The Secretary cast the ballot and the Chair declared Dr. Neal elected.

Dr. Emmet Keating nominated Dr. F. F. Maple, Chicago, for Second Vice-President. Motion seconded and carried. Dr. Beirne moved that the nominations be closed and the Secretary be instructed to cast the ballot for Dr. Maple as Second Vice-President. Motion seconded and carried. The Secretary cast the ballot and the Chair declared Dr. Maple elected.

Dr. Mather Pfeifferberger nominated Dr. A. J. Markley, Belvidere, for Treasurer. Motion seconded and carried. Dr. J. H. Walsh moved that the nominations be closed and the Secretary be instructed to cast the ballot for Dr. Markley as Treasurer. Motion seconded and carried. The Secretary cast the ballot and the Chair declared Dr. Markley elected.

Dr. W. D. Chapman nominated Dr. H. M. Camp, Monmouth, for Secretary. Motion seconded and carried. Dr. Chapman moved that the nominations be closed and the President be instructed to cast the ballot for Dr. Camp as Secretary. Motion seconded and carried. The President cast the ballot and declared Dr. Camp elected.

Dr. C. J. McNeill nominated Dr. R. R. Ferguson as Councilor of the Third District to succeed himself. Motion seconded and carried. It was moved that the nominations be closed and the Secretary instructed to cast the ballot for Dr. Ferguson as Councilor for the Third District. Motion seconded and carried. The Secretary cast the ballot and the Chair declared Dr. Ferguson elected.

Dr. L. O. Frech nominated Dr. W. D. Chapman, Silvis, as Councilor for the Fourth District to succeed Dr. H. M. Camp. Motion seconded and carried. Dr. Whalen moved that the nominations be closed and the President be instructed to cast the ballot for Dr. Chapman as Councilor for the Fourth District. Motion seconded and carried. The President cast the ballot and declared Dr. Chapman elected.

Dr. H. P. Beirne was nominated to succeed himself as Councilor for the Sixth District. Motion seconded and carried. It was moved that the nominations be closed and the Secretary be instructed to cast the ballot for Dr. Beirne as Councilor for the Sixth District. Motion seconded and carried. The Secretary cast the ballot and the Chair declared Dr. Beirne elected.

Dr. W. H. Gilmore nominated Dr. Andy Hall, Mt. Vernon, as Councilor for the Ninth District to succeed himself. Motion seconded and carried. It was moved that the nominations be closed and the Secretary be instructed to cast the ballot for Dr. Hall as Councilor for the Ninth District. Motion seconded and carried. The Secretary cast the ballot and the Chair declared Dr. Hall elected.

Five delegates to the American Medical Association were nominated, namely: Drs. E. P. Sloan, Bloomington; T. O. Freeman, Mattoon; J. H. Walsh, Chicago; C. J. Whalen, Chicago, and J. S. Nagel, Chicago. Each nomination was seconded. Dr. Gilmore moved that the nominations be closed and the Secretary instructed to cast the ballot for these five men. Motion seconded and carried. The Secretary cast the ballot and the Chair declared them elected.

Five alternate delegates to the American Medical Association were nominated, namely: Drs. E. J. Burch, DuQuoin; Emmet Keating, Chicago; W. S. Bougher, Chicago; C. E. Price, Robinson, and M. L. Blatt, Chicago. Each nomination was seconded. It was moved that the nominations be closed and the Secretary be instructed to cast the ballot for these five men. Motion seconded and carried. The Secretary cast the ballot and the Chair declared them elected.

As member of the Medical Legislation Committee, Drs. John R. Neal, Springfield, Edward Bowe, Jacksonville, and C. E. Humiston, Chicago. Each nomination was seconded. It was moved that the nomination be closed and the Secretary be instructed to cast the ballot for these three men to succeed themselves. Motion seconded and carried. The Secretary cast the ballot and the Chair declared them elected.

Drs. R. O. Hawthorne, Monticello, and J. R. Ballinger, Chicago, were nominated for the two vacancies on the Medico-Legal Committee. Each nomination was seconded. It was moved that the nominations be closed and the Secretary be in-

structed to cast the ballot for these two men. The motion was seconded and carried. The Secretary cast the ballot and the Chair declared them elected.

As members of the Relations to Public Health Administration, Drs. J. E. Tuite, Rockford; E. P. Coleman, Canton; A. H. Geiger, Chicago; J. J. Pflock, Chicago, and A. A. Tayden, Chicago, were nominated. Each nomination was seconded. It was moved that the nominations be closed and the Secretary be instructed to cast the ballot for these five men. Motion seconded and carried. The Secretary cast the ballot and the Chair declared them elected.

Under new business, Dr. Chapman moved that the per capita tax for the ensuing year remain at \$5.00. Motion seconded and carried.

The next order of business was a brief address by the President, Dr. E. H. Ochsner.

PRESIDENTIAL ADDRESS

The organized medical profession of the State of Illinois has achieved some notable victories during the past year. Some of them started de novo and brought to a successful issue all within the year, one of them the final chapter and the crowning achievement of the labors of many men over a period of a number of years. Other problems are still in the developmental period with good prospects of their successful fruition. At the suggestion of Dr. J. W. Pettit, former President of this Association and now President of the Illinois Tuberculosis Association, and with the hearty cooperation of the council of the Illinois State Medical Society, a school of instruction in tuberculosis has been organized for the purpose of bringing to the profession of the newer things in the diagnosis and treatment of tuberculosis. It was believed that such a school of instruction conducted by and through the representatives of the state medical society and its component societies, the county medical societies and the state tuberculosis association would eliminate many of the objections which accrue to such a school of instruction or clinic conducted by the state. It is gratifying to report that many of the county medical societies have already gone on record heartily approving the movement and with the request that instructors be sent to them.

Last December the Illinois Association for Periodic Health Examinations was incorporated. Your officers had much to do with the organization and incorporation of this association and getting it launched on the right basis. The constitution provides that the Board of Directors shall consist of seven persons, three of whom shall be physicians, one a dentist and three laymen. This assures the cooperation of the lay public with the medical and dental profession and at the same time gives the medical and dental profession virtual

control of the association. All that is necessary for the medical and dental professions is to keep their own houses in order and to keep the control of their respective organizations in the hands of men with the right outlook upon medical problems. I do not know of any movement which has been started within the last quarter of a century that promises so great an opportunity for services to the general public or that will be of so much benefit to the medical profession. I have looked into this matter from every angle and am convinced that if rightly handled it is bound to be of great benefit to all concerned.

The fight to have the state department of health get out of the practice of medicine and to leave the practice of medicine to the private physician of the state except in the case of the state wards and indigent has finally been won for the present at least. At the January meeting of the Council of the State Medical Society the director of public health of the State of Illinois announced that after February 1, 1924, all state clinics for the treatment of disease would be discontinued and stated that he would abide by the definition of state medicine passed by the House of Delegates of the American Medical Association at the St. Louis meeting at the insistence of the Illinois delegation. Probably only those who were present at the St. Louis meeting know how valiantly and insistently our delegate, Dr. Humiston, fought for this resolution and how ably he was supported by the rest of the Illinois delegation. If it had not been for the Illinois delegation at that meeting, that definition would never have been passed and there would be no telling what inroads state medicine would be making upon private practice by this time. You will recall that at the 1922 meeting of the Illinois State Medical Society, held in Chicago, a resolution was introduced setting forth what medical activities organized society, as represented by the nation and its political subdivisions might rightfully, fairly and profitably undertake. This resolution was unanimously adopted by this body and your national delegates were instructed to use all honorable means to secure its adoption by the national body. The resolution formed the basis for discussion at the St. Louis meeting and was adopted with only a few non-essential changes.

In order to again emphasize the far-reaching purpose of the resolution there adopted I quote the resolution here:

"The American Medical Association hereby declares its opposition to all forms of 'State Medicine,' because of the ultimate harm that would come thereby to the weal through such form of medical practice. 'State Medicine' is hereby defined for the purpose of this resolution to be any form of medical treatment provided, conducted, controlled or subsidized by the Federal or State government or municipality, excepting such service as is provided by the Army, Navy or Public Health Service and that which is necessary for the control of communicable diseases, the treatment of mental diseases, the treatment of the indigent sick, and such other services as may be approved by and

administered under the direction of or by a local County Medical Society, and are not disapproved by the State Medical Society of which it is a component part."

Those of the rank and file of the profession who never take an active part in furthering the interests of organized medicine can scarcely realize the amount of time, talent and thought which has been spent during the past year by the members of the council, your secretary, the editor of the Journal and the various members of your active committees in order to protect you, the members of the medical profession, against all manner of encroachment. I have regularly attended the meetings of the council for the past two years and the devotion to the best interests of the medical profession by those above enumerated has been a constant source of inspiration to me. The fine democratic spirit, the willingness to listen to any proposition and to judge it on its merits and to adopt that which seemed best for the whole profession has convinced me in these days when graft and crookedness are so rampant that there are still some men who place the welfare of the whole above individual and personal advantage. It is because of such wise, unselfish leadership that Illinois holds the distinction of being in the very front ranks in the protection of the profession and the public against the various influence that are trying to undermine the practice of medicine in this country.

The next order of business was the meeting place for next year. Invitations were received from Peoria and Quincy. It was decided to vote by ballot for the meeting place and Drs. Coleman, Harger and Miller were appointed tellers. Quincy received 67 votes, Peoria 11 and Bloomington 2. The meeting place will be Quincy. It was then moved that the vote be made unanimous for Quincy. Motion seconded and carried.

The next order of business was the report of the Resolutions Committee by the Chairman, Dr. J. H. Hutton:

1. The Gorgas Memorial:

WHEREAS, the life and achievements of the late William Crawford Gorgas have been to our members an inspiration to service for humanity, and

WHEREAS, The Gorgas Memorial Institute contemplates the establishment in his memory of a living working memorial in the form of:

(a) A Research Institute at Panama, for the study, prevention and cure of tropical diseases, and

(b) The development of a national campaign under the supervision of the scientific medical profession for the purpose of improving and protecting the health of people everywhere.

Therefore Be It Resolved, in consideration of these facts, the Illinois State Medical Society, assembled at its annual convention at Springfield, May 6th-8th, hereby heartily endorses the plan to memorialize William Crawford Gorgas, in the manner contemplated by the Gorgas Memorial Institute, not only because it will continue a worthy recognition of the character and achievements of our late colleague, but will be in effect a memorial to the efficiency and importance of medical science in world progress."

The Committee recommended that because of the indefiniteness of Clause B of Dr. Martin's letter that it be referred back to Dr. Martin for further explanation.

It was moved that the report be concurred in. Motion seconded and carried.

2. "WHEREAS, the work of the County Secretary is a very important one and no funds have been set aside for the carrying on of this work.

"Therefore Be It Resolved, that this House of Delegates recommend to the Council that expenses incurred in the carrying on of this work be defrayed by the Society."

Dr. Keating moved that the resolution be referred to the State Council. Motion seconded and carried.

3. "WHEREAS, at each succeeding session of the Legislature the Medical Profession is confronted with the problem of attempting to convert members of the House and Senate to a proper appreciation of the need of medical legislation, and

WHEREAS, this condition of affairs is due to imperfect information and inefficient organization of the Medical Profession in the respective Senatorial Districts,

Therefore Be It Resolved, that this House of Delegates recommend to the Council of the State Society that it employ a competent person to assist it in effecting a better organization of the profession to the end that better equipped men and women be sent to the Legislature."

Dr. Keating moved that the recommendation be accepted. Motion seconded.

Dr. L. O. Frech was not in favor of the resolution for the reason that there was a very efficient Chairman of the Legislative Committee.

Dr. Chapman stated that the resolution had nothing to do with the Legislative Committee; it was a matter for organization.

Dr. J. V. Fowler said the purpose of the reso-

lution was to organize the profession in such a manner that they will see that the proper people are sent to the Legislature and in this way they will help the Legislative Committee. Heretofore, this Committee has had a difficult task.

Dr. Gilmore moved a substitute motion that this resolution be referred to the Council for thorough consideration with power to act. Motion seconded.

Dr. Whalen stated that Dr. Frech was under a misapprehension. This resolution provides for a means to do the work that the Legislative Committee is expected to do at the eleventh hour, that it, for the men to select in their own senatorial districts the proper candidates. The work should be done before the primary. The work must be done at home and will not have to be done at the last moment when the men are actually voting in the House and Senate.

Dr. Beirne said he read the resolution a second time, that it was simply a recommendation very nicely worded. If the Council after threshing it out does not think it advisable, they can discard it. He thought the Legislative Committee would be treated fairly.

Dr. Frech said that as long as the matter was to be referred to the Council, it was satisfactory to him. He was not in favor of placing medical affairs, political or otherwise, in outside hands. He believed they should be kept on the inside.

Dr. E. P. Sloan said that this was a step in the direction of an Election Committee instead of a Legislative Committee. He was in favor of it and seconded Dr. Gilmore's motion. He would like to see the original resolution passed but he did not want to see it come out in the State Journal. It must be remembered that local men cannot change votes like outsiders can. The Society must have a machine by which they can use influence in certain districts. He felt that care should be exercised about putting such a resolution into the printed minutes.

In answer to Dr. Sloan, Dr. VanderSlice said that the control of the State Journal was in the hands of the Editor. The editorial policy of the JOURNAL is in the hands of the Editor. This resolution so far as it reads is unnecessary and he doubted whether the Council has anything to say about it except that if money is spent they will be asked to O. K. the bills. The writer of the resolution could have gone before the Council and discussed the matter. He suggested that

Dr. Gilmore and Dr. Sloan withdraw their motion. The original motion can be passed and if it is necessary to rescind it the next moment that can be done. If it is inadvisable to publish this resolution there is a way out.

Dr. Chapman said it was proper that this resolution be discussed in the House.

Dr. Pfeifferberger said it was entirely a local proposition. He thought it was a good resolution and should be discussed.

Dr. T. O. Freeman discussed the methods employed in the 34th District, comprising three counties. A committee of five is appointed whose duty it is to investigate every candidate's record before primary. Those men who have been in office and have good records are recommended; those with poor records are not recommended. Each candidate is interviewed as to his feeling concerning medical matters.

Dr. Gilmore with the consent of his second withdrew his substitute motion. He asked what had become of the very elaborate plan and the committee appointed to take care of the matter in the individual counties.

Dr. Fowler said he did not know what had been done downstate. As far as Cook County was concerned, he did not know that anything had been done. He thought the gentlemen got a misconception of this resolution. It is merely a recommendation to the Council and the details must be worked out by the Council and the Legislative Committee.

Dr. Frech asked if Dr. Fowler could give some definite idea along what lines he referred to in the way of organization.

Dr. Fowler said he did not think it would be wise for him to elaborate a plan. It was worked out in his own mind, but he felt it should be worked out by a small committee.

Dr. Neal said the medical men were better organized down state than in Cook County. He was heartily in favor of anything that would bring forth better co-operation. They know who the down state men are but they do not know about the Cook County men and they have the voting majority. He felt the resolution was a step in the right direction provided a lot of expense was not incurred. He was in favor of the resolution provided the committee could get together and work out the details. Chicago and down state should co-operate better than they do.

The motion made and seconded that the recom-

mendation be accepted was unanimously carried.

4. Resolution regarding foreign physicians. (This resolution appears in full on pages 23 and 28.)

It was moved that the resolution be adopted. Motion seconded.

Dr. Gilmore said he was a member of the Committee on Medical Registration and Education and they were perfectly aware of this situation. They went so far as to pass a motion in this Committee that no foreigner would be admitted to the examination until he becomes an American citizen. However, the only way that can be made legal is to put it into the Medical Practice Act. The examination can be made very difficult and at the last one three-fourths of them failed. The examination has to be in English.

Dr. Hutton said that if a man had his first papers he could take the examination and these were easily obtained.

Dr. Humiston said he was heartily in favor of this resolution. In answer to Dr. Gilmore's question, how can the Committee keep these men out, he said that before a candidate is admitted to examination the school from which he graduates must be approved by the Department. Let the Committee refuse to approve a foreign medical school and they are done.

Dr. Fowler offered an amendment to the motion that it be recommended also that the Legislative Committee take steps to have this inaugurated into a law at the next session of the legislature. Amendment seconded.

Dr. Chapman said he did not think it was the intention of the recommendation nor did he think it wise never to recommend any European schools.

It was moved that the resolution as amended be accepted. Motion seconded and unanimously adopted.

5. "WHEREAS, foreign physicians are now coming to the United States in increasingly large numbers, and

WHEREAS, neither by length of residence nor desire to obtain the viewpoint of American citizens are they fitted to teach our ideals of sanitation and other attributes of good citizenship, and

WHEREAS, certain hospitals are now employing internes, pathologists, laboratory technicians, and election to staff membership physicians not U. S. citizens, and

WHEREAS, the employment of such men in

these capacities deprives citizens of the United States who have fitted themselves for such work from their just reward,

Therefore Be It Resolved, that the House of Delegates of the Illinois State Medical Society respectfully call to the attention of all hospitals and other medical institutions our endeavor to make organized medicine in Illinois an organization of American citizens and earnestly solicit their co-operation in this endeavor to the extent that they refuse to employ pathologists, internes, laboratory technicians or elect to staff membership physicians not American citizens.

Furthermore, that copies of this resolution be sent to all hospitals and laboratories in Illinois, to the American Medical Association, and the College of Surgeons."

It was moved that the resolution be adopted. Motion seconded and carried.

Dr. VanderSlice moved the adoption of the report of the Resolutions Committee. Motion seconded and carried.

Dr. Pfeifferberger moved a resolution of appreciation and commendation of the work of the present Secretary. Motion seconded and carried by a rising vote.

Dr. Chapman thanked the House for the resolution.

Dr. Nelson moved a resolution of thanks for the services of the retiring president. Motion seconded and carried.

Dr. Bowe moved a resolution of thanks to Springfield for the courtesy extended to the Society. Motion seconded and carried.

Dr. C. J. Whalen presented the report of the Committee on Medical History.

REPORT OF THE COMMITTEE ON MEDICAL HISTORY

A salient point to be borne in mind is that if this history is to be worthy of the work it aims to commemorate, it must be constructed coherently from the medical history of every community in the state. This means that every physician in the State of Illinois should pause long enough to supply the committee with what data he or she possesses or with information where such data may be procured. Sifting chaff from grain with chop-sticks is ultra-easy in comparison with winnowing out the archives of the past. Annals of those sturdy pioneers are only partially found in libraries and court houses. By far the greater portion of desirable memorabilia is apt to be locked in garret chests and faded family albums and scrap-books. Will every member of the Illinois State Medical Society make it a point to see that his community is in some

way informed that this work is in progress and request for the history committee the loan of documents, pictures or other mementoes that may be of interest or assistance?

This history can be made a very valuable reference work as well as a respectful tribute to those men who laid the foundation of medical work in this state.

Coming from the past to the present it is the purpose of this record to trace the inside growth of the practice of medicine in Illinois and to present a bird's-eye view of the gradual assembling of propaganda both inimical and friendly to the future of the science of medicine and the prophylaxis of a perfect sanitary service.

With the second largest city of the United States and one of the ten largest cities in the world situated in Illinois, and boasting one of the lowest death rates, thanks to this present excellent sanitary service, detailed account of the fight for good medicine in Illinois will prove of rare interest, even to the municipalities without the gates.

Data can be sent to any member of the committee. Receipt will be acknowledge and material will be returned.

To make this history with the scores of inevitable details of interest to the profession, of value as a unit in the future annals of Illinois, the work should list all officers of the society since its inception; epitomes of the accomplishments of each annual meeting; biographies of the founders; documentary memorabilia of early years, decadal reports of organization activities; complete proceedings of the first session of the organization; financial status of the society; legislative activities including administration of the medical practice act, code of ethics, malpractice defense, police duties of society; licensing of physicians; medical colleges and their aims; allied institutions such as hospitals, dispensaries and nursing schools, sanitary service from state and community boards of health to general public welfare endeavors; records of county and city medical societies; comparative chronological tables; portraits of founders and of those splendid men who have carried the burdens of medical organizations and medical men for years without complaint; a reproduction of the historic charter—one of the oldest of the state, and what non-professional activities in the way of civic duty have been accomplished by busy and respected medical men of Illinois. Nor must be forgotten attempts at disruption of the society; its triumphant survival; the objectives for which it has striven since its founding, and, best of all, the notes of optimism that will make easier the way of the medical man in generations to come.

That this note of optimism must be literal advice to "gird up the loins and enter the fray" will make it none the less a note of courage. Once a man knows where his enemy lies in ambush, first defense, and later, victory are assured.

Let it be repeated that every doctor in the state of Illinois who wants this history to be an honest record of the patient years and the self-sacrificing men and

women whose deeds made possible the wealth of Illinois, should try to send in at least some small thing to make complete the book.

MEDICAL HISTORY COMMITTEE.

O. B. Will, M. D., Peoria; Charles B. Johnson, M. D., Champaign; Carl E. Black, M. D., Jacksonville; George A. Dicus, M. D., Streator; James H. Hutton, M. D., Chicago; Chas. J. Whalen, M. D., Chicago, Chairman.

Dr. C. J. Whalen presented a proposition regarding the purchase of a Broadcasting Station by the State Society.

STATE SOCIETY SHOULD HAVE ITS OWN BROADCASTING STATION

The Illinois State Medical Society should lose no time in effecting permanent radio outlets.

Radio is the last word in the dissemination of news and propaganda. Every night 15,000,000 persons listen to radio; of this number Chicago alone holds 500,000.

Already the chiropractics have this 15,000,000 by the ear. For two hours every night the chiropractics fill the air from Davenport Station, WOC, owned by the Palmer School of Chiropractic. Needless to say much misinformation has been broadcasted and this work of the Palmer school has done more than all else to promote the cause of the chiropractic and charlatan.

The Illinois State Medical Society should have its own station even if a special assessment must be levied to meet the cost. If chiropractors can afford this in the cause of devastating quackery, certainly the great medical profession of Illinois should assume the expenditure for the sake of truth, science and humanity.

If the Illinois State Medical Society wishes security for future radio outlet, now is the last opportunity. The number of wave lengths is limited. Restriction of licenses is inevitable. A military and civil conference is imminent.

Obviously broadcasting will soon be placed upon the commercial basis towards which it is drifting. Current rates are \$2,500 an hour—a price already prohibitive for individuals or small organizations.

It behooves the Illinois State Medical Society to procure a license for broadcasting, even if the permit remains temporarily inactive, as there is an investment feature not to be disregarded. When the lid is clamped down on new licenses this permit will have increased value. Buying now means buying cheaper than a year from now. It will cost less to make this contact now than it will next year. While it is an expensive proposition, it is also a valuable asset, for it will sell subsequently for many times its present cost. If we make this contact now, we will be independent of the commercial feature. It will also prevent our being disbarred from having a license because of a restricted quota.

Recent activities in Washington reveal Federal intent to rule the air where the radio is concerned. This is not surprising. Washington has a commercial conscience, quickened at times by private inspiration, and in only a few years the radio industry has grown by

leaps and bounds. Licensed stations have increased from 3 in 1921 to nearly 700 in 1924.

To procure the monopoly of the air has been the past, and is the present desire of several large corporations. From time to time several bills aiming to direct and methodize the industry have been introduced in Congress. In the last session a radio control bill passed the House, but in the Senate failed to receive consideration. Now the Senate has passed the Howell bill. Further the White bill is under consideration in the house. This bill confers upon the secretary of commerce broad powers of jurisdiction over transmitting stations. This authority is to be exercised for the primary purpose of reducing interference to a minimum and to aid the development of an orderly system of radio communication.

Salient points about this proposed legislation are:

1. Transmitting stations and operators would be subject to government license.
2. Licenses would remain in force for ten years, unless previously revoked.
3. Wave lengths would be allocated to transmitting stations by the secretary of commerce.

A monopoly of the air would be a reality if it were not for the great number of private licenses at present in existence.

Broadcasting by individuals in the near future will be greatly curtailed both in numbers of licenses granted as well as in time allotment as an inevitable necessity.

There is a limit to the number of hours that the air can be used for broadcasting. There is a limit also to the number of wave lengths in the atmosphere, and for these reasons there must be a definite limit for the number of licenses.

Obviously big corporations and public agencies, such as metropolitan newspapers, will be granted longer periods of time for broadcasting than will individuals.

Here again is seen the law of public necessity and community policy.

Tentative figures as to the cost of a radio station estimate that a one-thousand watt station will cost from \$20,000 to \$25,000. Any station of less power would hardly be adequate.

While the purchase of a radio station might seem to verge beyond the bounds of necessity for the Illinois State Medical Society, the recommendation is made only on the premise that such facilities are indispensable for up-to-date professional equipment that will reach the public effectively.

Dr. Pfeifferberger moved that this be considered and referred to the Council. Motion seconded and carried.

An amendment to this motion was offered to the effect that the delegates to the American Medical Association be instructed to take this up with the American Medical Association and recommended same. Dr. Ferguson seconded the amendment with this exception, that it first be recommended to the Council and then to the American Medical Association.

Dr. Whalen said that was simply shifting the responsibility.

Dr. Camp said it was an excellent proposition and the House of Delegates should go on record with a definite recommendation to the Council.

Dr. Nelson said it would be absolutely impossible for the Council to do this since Dr. Whalen said it would cost \$20,000 to \$25,000. If the Council were empowered to further this proposition and then let some local man invest the money, it would be all right.

Dr. Pfeifferberger said he did not think it was Dr. Whalen's intention to purchase the instrument at the present time but simply to get permission from the government to have a station and to get the wave length.

Dr. White, Kewanee, said there was no certainty as to whether the licenses now issued would have any value if the government took over control of the air. Radio men state that at that time many stations will be put out of business.

The amendment to the motion was withdrawn. The motion made and seconded that the matter be referred to the Council was carried.

Dr. J. C. Whalen stated that at a meeting held last night it was decided that a work somewhat similar to the one gotten out by the Massachusetts State Society should be published by the Illinois State Society. This book contains 506 pages with about 100 illustrations and the cost of such a book including the cuts would be \$2200.00 for the 1,000 copies. Dr. Black says it would be useless to publish less than 1,000 to start.

Dr. Keating moved that the report of the Committee on Medical History be accepted and concurred in. Motion seconded.

Dr. Bruning asked how the Society would go about giving Dr. Whalen the temporary financial support he asked for.

Dr. Whalen said that a work of this magnitude required money. Stenographers had to be employed, history looked up. The cost ultimately will be considerable.

It was moved that the Council be empowered in this matter to act as they see fit. Motion seconded.

Dr. Keating with the consent of his seconder withdrew his motion.

Dr. Earle asked whether Dr. Whalen favored the proposal to refer the matter to the Council.

Dr. Whalen said it was necessary to have funds to carry out this work. If the doctors of the state of Illinois want this book, give it to them; if they do not, discontinue the work.

An amendment to the preceding motion was offered to the effect that the House of Delegates approve the proposition as submitted by Dr. Whalen and that the matter be referred to the Council. Amendment seconded.

Motion as amended was carried.

Dr. Harvey said that the House of Delegates should go on record as approving the suggestion of Dr. Whalen in reference to the establishment of a broadcasting station under the control of the organized medical profession. Motion seconded.

Dr. Chapman said the House of Delegates knew very little about the establishment of broadcasting stations. The action of the House taken a few moments ago was that the matter be referred to the Council for consideration.

Dr. Beirne said this was opening up a great question. He felt the Council could be trusted to do what was right in the matter.

Dr. Camp said Dr. Harvey's intention has been misunderstood. He merely wanted to approve of Dr. Whalen's suggestion.

Dr. Doane said this matter was coming up at an importune time. The motion made by Dr. Harvey was lost.

On motion duly made and seconded the House of Delegates adjourned at 12 o'clock.

MAN WANTED

Wanted—A man for hard work and rapid promotion, who can find things to be done without the help of a manager and three assistants.

A man who gets to work on time in the morning and does not imperil the lives of others in an attempt to be first out of the office at night.

A man who is neat in appearance and does not sulk for an hour's overtime in emergencies.

A man who listens carefully when he is spoken to, asks only enough questions to insure accurate carrying out of instructions.

A man who moves quickly and makes as little noise as possible about it.

A man who looks you straight in the eye and tells the truth every time.

A man who does not pity himself for having to dig in and hustle.

A man who is cheerful, courteous to everyone and determined to "make good."—The Shield.

Original Articles

MEDICAL PREPAREDNESS IN TIME OF PEACE*

MERRITTE W. IRELAND, M. D.,

Surgeon General, United States Army, Washington, D. C.

I esteem it a very great honor and privilege to meet with the faculty, alumni, and students of this distinguished university which you represent, for the splendid purpose of commemorating the accomplishments of those of our associates and colleagues who contributed even unto death "that liberty might not perish from the earth."

One feels a conflict of emotions when participating in a memorial function for the purpose of perpetuating the deeds of valor and service of those, who, in the country's hour of need, have added lustre to the standards of an institution, the accomplishments of which, in the advancement of civilization appear to prepare its standard bearers for service to country and to humanity. As I join with you in earnest endeavor to do honor to those who have made glorious history for your alma mater I am deeply conscious of the emotions which are yours, as you are carried back to the days of 1917-1918. The materialism of the succeeding years has crowded from our memories and conscious action the splendid spirit which prompted us to accept the challenge in humanity's defense. The coarser things in life have submerged the spiritual and left us unwilling but susceptible instruments to the day's ambition. The unselfish devotion of the individual for country's honor, for university's prestige and for humanity's safety in the world was an ambition for self-destruction, for sacrifice, that a greater number might live in harmonious peace.

We are not here to engage in extolling the physical prowess of those immortal souls, inspired by an opportunity for splendid service, who paid the great price for country. Commemorative ceremonies reflect a far more useful purpose than reminiscent glorification of the physical in those who have gone before—they are monuments unveiled—shrines of service—brought clearer to view, to be an inspiration to those of us, who in memory, in spirit and in fact are privileged to do honor to our brothers, who by their service have honored the great institu-

tion whose spiritual reflection prompts and impels us to dedicate a part of our interest, that the distinction which they have given to country and to university may be perpetuated.

Those whose memory you revere, whose contribution to the World War effort you glory in, and for which you honor them this evening gave very definitely, very unselfishly, and I hope have reflected their spirit of unselfish loyalty in a manner which will be appreciated by those who take pride in their association with this university of the patriotic State of Illinois. The effect of the sacrifices they have made, the reflection from their unalloyed gift (even in life) to a cause in which they sincerely believed, would be gross were its influence not felt as an inspiration for emulation of their deeds, prompted by devotion to public service.

I am prompted to bring before you tonight a matter in the interest of your country, your state and your University which becomes more irresistible as I recall the unselfish spirit which characterized the service given by the professions engaged in providing the medical service for the American army during the World War. These men whose memory you honor, our forgotten dead, were among them.

Go back with me in your minds, if you will, to 1917, when after nearly three years of casual and indifferent observation of the tragic events in war torn Europe, an ever present menace to our own national safety and peace, we cast our lot with "right" and determined to do our part to crush the Central Powers. Look you at our state of unpreparedness, our great efforts to convert the wonderful national peace machinery to the purpose of war. Visualize if you will the gathering together of our citizens and their organization into military units, and more intimately consider the tremendous burden of gathering together in the precipitate, unstudied way which the emergency required, of physicians, dentists, veterinarians, nurses, and other personnel to provide the medical service so essential to the successful promotion of warfare.

The urgency of the situation presented to the United States for its own defense and for the ultimate rescue of our allies from the hardships and menace to their very existence, imposed by several years engagement at arms, demanded immediate action. Time did not permit the orderly organization with proper assignment to function

*Address before University of Illinois College of Medicine Alumni, at Sherman House, Chicago, June 11, 1924.

of physicians according to their special qualifications. No provision had been made for the assimilation of men for the medical service of that colossal machine of war into which the A. E. F. developed. Our citizens, basking in prosperity, gave little thought and took no heed of the possibilities of war. We were, as a nation, generally unprepared for war and were in no sense better prepared from a medical standpoint.

From an available force of somewhat less than two thousand, more than half of whom had no military training and all of whom were unschooled in the development of so tremendous an organization as later crystallized into the Medical Corps of the U. S. Army, a service requiring over 35,000 physicians was evolved. Is it then difficult for you to perceive that despite the wonderful achievements of the medical and allied professions, pride in the achievements was alloyed with discontent, dissatisfaction, inadequacy and relative inefficiency in organization?

The need of doctors was of greatest urgency and as rapidly as they could be commissioned they were assigned to duties where their need was already sorely felt. Opportunity to study qualifications in civil life and assignment to function in a specific military position in accordance with demonstrated qualification and capacity in civil life did not present, and because of our necessarily precipitate organization and mobilization, could not be made without increasing greatly the hazard to our allies and our own country. Medical preparedness for the national defense is an obligation of the medical, dental and veterinary professions. Its success depends solely upon your interest and support. If the opportunity to prepare in an orderly and efficient manner in time of peace is neglected, you promise a repetition of the inadequacies and inefficiencies which were undeniable in our World War effort. If a reasonable preparedness is accomplished in time of peace, harmonious organization of the medical service is assured and quick mobilization and efficient operation guaranteed.

I can conceive of no more appropriate monument that you can establish to commemorate those whom we honor tonight, than to dedicate your interest and your support to the medical program of the national defense, with the resolve to accept your special obligation for citi-

zenship in preparation for the wars that may, but we hope will not come.

We are a prosperous and progressive people, unselfish and benevolent in our relations with the nations of the world with whom we must develop an inter-relationship—economic, diplomatic, and social. We are unconsciously engaged in the development and expansion of great world policies which will give the acid test to our influence and power for the advancement of all people. Contact with the nations of the world must be developed, promoted and sustained if we are to exist as a great nation of the world. All peoples worthy of the name must develop national ideals. The development of the ideals of a nation constitute an ambition, which may interpret itself as a desire for greater power with an exhibition of military strength, in an effort to subdue and submerge the more prosperous but less well prepared.

I believe that this psychology—one of imperialism—was the influence which prompted the almost successful aggression of the central powers which precipitated the World War. We occupy the position of a nation with vast developed and undeveloped resources, whose existence in the World of Nations will be determined by the influence which we must ultimately exert in the advancement of civilization, in concord and harmony with co-nations. The national ideals and ambitions of nations must to some extent conflict if civilization is to progress. From this conflict of ambitions demonstration of passions replace diplomatic reason and judgment, with the inevitable recurrence of strife. Preparedness for defense is an instrument of peace. A nation whose citizens have evidenced that they are organized in preparation for defense, not only demonstrates and fulfills the highest ideals of citizenship but affords itself immunity against aggression.

The military policy of the United States adopted by the Act of June 4, 1920, as an amendment to the National Defense Act, provides for a fulfillment of the constitutional obligations of citizenship in the preparation of the nation's resources for emergencies. It is needless to repeat the oft reiterated declaration, that a prepared nation is in no sense one conscious of its military strength and engaging its wits and cunning to compromise less prepared nations to the point of declaration of war, that they may

test their strength to the disadvantage of weaker adversaries; on the contrary it is a wise provision in time of peace in preparation for war.

The present military policy makes the National Defense the citizens' obligation and the success of its fulfillment will be determined by the acceptance of this obligation of citizenship in defense of the rights and privileges which it imposes and bestows.

This policy contemplates the use of the manpower of the United States in three echelons, the Regular Army, the National Guard, and the Organized Reserves. The organization of the Army for defense is inadequate and incomplete without an efficient reserve organization. In fact the success of the policy will be determined by the interest and support given the development of organization in time of peace.

It is proposed to organize the Officers Reserve Corps into units in peace time, so that with the skeleton thus provided and at least partially trained, mobilization will not be attended with the inefficiency with which you are all so familiar, and which must naturally always characterize precipitate and unstudied gathering together of officer personnel to lead troops in action.

To the medical profession belongs the responsibility for the development of the medical service under the policy, and it is a responsibility which should not be taken lightly. This is your individual responsibility which cannot be transferred. It is, of course, understood that the profession will not be tardy in volunteering its services unstintedly and will contribute unselfishly to the successful promotion of war should the security of the country be menaced.

Organization and mobilization in the face of an emergency will always develop mal-assignment and resulting loss of motion and inefficiency which must necessarily characterize hasty gathering together of physicians to perform the military duties of their profession. The urgencies of war will not permit a studied consideration of the demonstrated fitness of applicants to function in military units when the emergency is upon us, and mobilization is made unnecessarily long, tedious, and expensive because it must (in the absence of peace time organization into units) be by individuals.

The present plan provides that physicians after appointment in the Reserve Corps will be assigned to military units to function in the

special line of work for which they have demonstrated their fitness in civil life. The preference of the applicant is given every consideration in making assignments. Mobilization points are designated for military units and the senior medical officer of the unit will be notified of the mobilization point and the names and addresses of the officers assigned to his unit, so as to be prepared for immediate mobilization and equipment of the unit. In the event of war requiring the mobilization of the Reserve, orders will be issued for the mobilization of the unit at its rendezvous. In other words, if proper preparation is made, the next war will witness the orderly mobilization of Medical Department Units, instead of individuals.

The tremendous advantage of this plan, providing as it does for assignment of individuals to units where their services can be used to best advantage to the military service, and where they will be happiest in the performances of military duty, is obvious. It is in striking contrast to the situation which will present if organization for mobilization is not prepared prior to the occurrence of military need, since organization must then slowly follow the gathering together of men who apply day by day for appointment, and whose commissions as officers follow many days after unnecessary and unwarranted effort to collect sufficient physicians to meet the immediate demand for medical officers for units precipitatedly organized and mobilized for service—made more urgent and hazardous by unpreparedness. It naturally follows that attention in such anxious moments can not be paid to the proper application of special training in civil life to function in military units, but that orderly and proper organization must be sacrificed to the end that a medical service for the troops engaged be furnished without delay. Thus follows the assignment of highly trained specialists to work foreign to their training, to the impairment of efficiency of the military unit, and to the disturbance of morale of its personnel.

Adequate peace time organization is the only guarantee which can be offered to the preclusion of these defects and the medical profession will not only contribute inestimably to the preparedness program by giving support to the Officers' Reserve Corps by seeking enrollment in the Medical Section, but will assure their own assign-

ment to military work for which they are best fitted by their activities in civil life.

I consider the organization of the Medical Department Reserve Corps one of the outstanding obligations of my office, and it is desired that the medical profession fully realize the tremendous advantage which naturally follows orderly organization in time of peace. It is conceded that you will respond immediately to the need of the country for an adequate peace time organization of the medical service for war, once you understand the purpose of the War Department in developing the defense program, and will realize that studied and careful organization for emergency assures greater efficiency in the operation of the medical service and harmony among the members of the profession in carrying on war work.

The requirements for the medical service are estimated at approximately 45,000 medical officers, over 25,000 of whom will be assigned to units performing hospitalization and evacuation work. The present enrollment in the Medical Section of the Officers' Reserve Corps is 8,000 officers. It is estimated that an enrollment in the Reserve Corps of 20,000 officers should be had before specific organization of units, other than those fostered by civil institutions, can be intelligently proceeded with.

Without adequate and efficient organization in time of peace, the Medical Department of the Army will be able to function with only approximate efficiency in time of war, and on the extent of that difference between approximate and full efficiency depends in a large measure, the number of lives of our own soldiers which must needlessly be sacrificed.

In the operation of the medical program for the organization of the army for a maximum effort the prevailing policies are directed to organization of medical units of reasonable efficiency, composed of medical men whose professional work in civil life provides for the assumption of military duties with the armies, when called to active duty in a national emergency, with the minimum amount of individual sacrifice. The medical service for duty with combat troops (divisional units such as battalion and regimental detachments and the medical regiment for service with divisions) provides for the initial care of casualties among the troops in action. It is an extremely important part of the

vast machine which the medical profession must provide to care for the health of troops and the collection, hospitalization, and evacuation of casualties, to the more permanent medical installation in rear of the actual front.

Medical officers of the Reserve Corps assigned to function with these units are classified as belonging to the Territorial Assignment Group under the control of the Commander of the Corps Area, in which the officer resides. A vast but comprehensive and interdependent machine is developed from the units of the Medical Department to provide for the activities in preventive medicine and care for casualties requiring hospitalization for longer periods.

An estimate of the problem of organization may be fairly reached by a citation of the units of the service of the line of communications. This service is provided by the development of organizations from among officers assigned to the Branch Assignment Group and comprises:

	Reserve Officers
1 General Medical Headquarters.....	27
6 Army Medical Headquarters.....	78
18 Corps Medical Headquarters.....	44
6 Convalescent Hospital	54
90 Evacuation Hospital	2,790
6 General Dispensaries	36
24 Hospital Centers	648
72 Hospital Trains	88
6 Army Medical Laboratories.....	18
18 Aviation Medical Laboratories.....	90
2 Communications Zone Medical Laboratories	8
2 General Medical Laboratories.....	21
270 General Hospital	8,100
2 Medical Department Consent. Center.....	16
2 Headquarters Com. Zone.....	22
180 Station Hospital	1,920
6 Army Medical Supply Depots.....	24
12 Medical Supply Depots C. Z.....	48
72 Surgical Hospital	1,080
6 Vet. Cont. Hospital.....	6
24 Evacuation Hospital (Vet.).....	6
60 Vet. General Hospital.....	60
1 Consultant at large.....	15
2 Specialists Group which include:	
25 Gas Teams	
25 Macillo-facial Teams	
25 Miscellaneous	
25 Research Teams	
25 Shock Teams	
25 Splint Teams	
200 Surgical Teams	
Total of	910

A total of 1,237 separate units requiring 17,075 medical reserve officers is necessary in the

hospitalization scheme of the line of communication. I wish to impress upon you that most of these units are composed of staffs of physicians so organized as to provide a well balanced corps with representatives from among those proficient in the specialties in medicine.

Let me reiterate that such an organization cannot be developed when the emergency is upon us, without tedious delays, impairment of efficiency, and harmony. Such a machine is assured successful organization, mobilization and operation, if the medical profession will lend their interest and support by enrollment in the Reserve Corps. It is with deep reverence that I pay my respect to the memory of those who have indelibly reflected by their spirit of service and sacrifice an inspiration to dedicate ourselves to engage in the promotion of the National Defense. I, and all the agencies of my department are at your command to advise, inform, and aid you that the military work of the medical profession may be so organized in time of peace as to give assurance and example to the country that its armies will be well and promptly served in war as in peace.

The medical profession of the United States has never failed to meet the call of the Government to face an emergency. From the beginning the very cream of the profession has taken the field to give the American soldier the best possible treatment when he became ill or injured in the defense of the country. All this has been a volunteered service on the part of the profession. One of the proud traditions of the World War will be that a negligible number of men of our profession had to be drafted into the service. But in all the wars we have undertaken there has been a tremendous amount of confusion at the beginning, because we were not prepared for the emergency.

During the World War forty-three physicians lost their lives on the field of battle, twenty-five died from effect of wounds, and 325 died from disease. In my opinion no more appropriate memorial could be erected to these comrades than for the medical profession of this country to dedicate themselves to a program of national defense, so that the next emergency can be met, from the medical standpoint, in an orderly, efficient way. The men who gave up their lives in the World War with failing hands pass the

torch to us which we should hold high while they sleep in Flanders Field.

CHRISTIAN FENGER'S WORK IN CHICAGO

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Dr. Bayard Holmes¹ has presented us with the most charming and illuminating sketch of Christian Fenger and his influence upon the medicine of our part of the world that we have thus far been favored with. It is the present purpose to add some thoughts upon the subject, not to criticize. Dr. Holmes' association with that medical hero was intimate and personal, and I can add nothing here upon the biographical side. It is with the broad picture of our professional life and Fenger's relation to it that I would deal.

Brought up as the son of a physician who was trained in the University of Louisville, which gave the country so many eminent men, and who was experienced in the arduous duties of civil war surgery, I was early impressed with the character of medicine in Kentucky, Illinois and Michigan, in each of which states I was able to study the personalities and the methods of the men eminent in the profession in the late seventies and eighties.

The medical literature of America I judged at first from the reading of books and periodicals written in English reflecting the attitude and the activities of English and American medical men.

And a barren, desert prospect it was. The general preparation of medical men for the study of medicine was usually quite inadequate, the university graduate being rare, but wherever found, taking a prominent place in the work. The common conception of the possibilities of medicine and surgery was weak in the extreme, although the advanced ideals of professional interrelation and etiquette were perhaps higher than they are today. Medical literature in America was narrow, indeed, not touched with the spirit of scientific enthusiasm.

At the university which I attended in the early eighties the journals of chemistry, of therapeutics and of pathology printed in English were fewer in number by far than those of the European continental countries, and the evidences of observation, experiment and close reasoning were

1. Chicago Medical Recorder, January, 1924.

but slight. By contrast, the corresponding fields of effort as cultivated on the continent were full of vivid growth, and the fruitage abundant. When I called on Dr. Fenger at his home in 1887 and asked him to give me the key to the surgical literature of Europe he pointed out at once the commanding position of the *Centralblatt für Chirurgie* and of the large and influential special surgical journals of the German and French languages. At that time most excellent treatises on general surgery, surgical diagnosis and the surgical specialties were in existence. And he who could read the German language could regale himself joyously with the varied text-books on pathology, on the new bacteriological labors of Koch, Hueppe and Rosenbach and on the surgery thus generously supported.

In Chicago during the late eighties, the professional atmosphere was heavy indeed. The wonderful Cook County Hospital offered extraordinary opportunities to observe an immense variety of diseases, even if their treatment was inadequate. Yet to learn anything of diagnosis or morbid anatomy there was almost impossible except through Fenger. The study of clinical, diagnostic medicine or neurology under competent auspices was absolutely impossible. Despite the eager longing for such instruction springing from a good grounding in general scientific methods gained elsewhere, we young internes found it quite impossible to break through the dense crust of ignorance and indifference presented by the attending internalists, the gynecologists, the neurologists, etc., of the staff of that time.

What was the cause of this status of American medicine in general and Chicago medicine in particular? It lay in the crab-like clinging of the professional intellectual body to traditions and hearsay instead of making fresh observation and experimental investigation. The teachings of Drake, Tanner, Agnew, Gross, Emmett, Thomas, Ransbotham, Tuke, *et id omne genus* had been but slightly enriched by the streams of eloquence bearing a little, bright bedside observation emitted by such men as Milner Fothergill and Trousseau worthily representing the best in the English and French medical thought of the dying epoch.

The great encyclopedia of Ziemssen, translated into English and republished in America, was not potent enough to modify medicine here, but left it languishing in its husk of English and French

paternity and tradition. A visit to England in the mid-nineties convinced one of the then aridity of general medical thought and practice there, despite the fact that England had a few men of the first rank like Gowers, Horsley, Ogston and MacEwen.

This state of affairs was not universal throughout the world at that time. Where lay the seed and source of the vivid, scientific medical thought now to be found flourishing abundantly in America? Be assured that it was then growing luxuriously on the continent of Europe, north of the Alps! The men who there gave or had given the necessary touch of genius, industry and organized labor that vivified the sad topic of medicine and made it attractive and hopeful to optimistic students were such as Schleiden, Schwan, Virchow, Pasteur, Robert Koch, Ludwig, Billroth, Bergmann and Kocher! An army of scientific workers was busy in Germany, Austria, Switzerland, Belgium, Holland, Denmark, Norway and Sweden during the eighties and nineties while England and America were still asleep except for a few brilliant individual workers.

We now come to the point of our argument. How did the secret get out? Who brought the knowledge out of that region to America and made it seem desirable? It was Christian Fenger who most conspicuously accomplished the task of pioneering the implantation of systematic investigation upon the soil of our own part of the world. Osler's greatness and glory rest distinctly and obviously upon his training in German speaking countries and then upon his importation into America of the methods and the knowledge discovered there. Welch, Councilman, Kelly and W. S. Halstead did the same work for Johns Hopkins, laying the true foundation of that school's greatness in the same way, after the pattern of Teutonic scientific labor. The sporadic greatness of such giants as Lister, MacEwen, Gowers and Horsley did not rouse Great Britain from her lethargy. Osler was discovered and observed by the British after he had succeeded in America and later by them apotheosized through an Oxford Regius professorship after the Listerian wave had, unnoticed, left British shores, passed over Teutonia, America and Canada and returned to be welcomed in England long after the fact!

In what lay the great opportunity of Christian Fenger? It was embraced in the fact that

he could and did first cogently bring to the Mississippi Valley the type of manly training and development, the scientific methods and something of the knowledge of the medical Teutonia of his time; that he was able thus to charm away the dismal fog of that tradition of American and British medicine which he encountered, and that he could and did advise young medical men to visit continental Europe and study scientific medicine north of the Alps. Many of the foremost surgeons, pathologists and internists of Chicago today sprang from this inspiration.

Fenger's labors are well embalmed in the three great volumes of his writings collected by the unselfish efforts of his pupils. Every surgeon should study them. They are quite worth while today. No man can understand the surgery of today without knowing how it came to be. And Fenger's surgery is still fresh; it is but of yesterday.

Christian Fenger was a man of minor greatness—that is there was an element of real greatness in him. He was able, to some extent, to perceive, to dwell in and to transmit to others the ideals of universality as they exist in medical science and art. It was this greatness that enabled him, with much industry and wise singleness of purpose, to impress the youth of the medical profession he encountered with true breadth of vision. He was able to see that biology and its applications underlie medicine everywhere. It was, therefore, easy for him to unhorse his light opponents in medical contests who depended on superficial observation and opinion instead of mensuration, enumeration, microscopy, bacteriology and literary study.

Clinically Fenger made it plain that the successful surgeon who longs to cure his patients must be grounded in the simple arts of direct bedside observation and at least the A B C of pathological anatomy. The intricacies of blood chemistry are today but of illusional value when percussion, auscultation and palpation are neglected.

He taught by example the value of scientific honesty in the use of surgical indications, which were as law to him. The considerations of business expediency in hurrying patients into surgical operations were abhorrent to him. The direct pursuit of money through medicine was for him unthinkable; his contentedness with moderation in financial requirement left him heart-free for scientific meditation.

The effect of such a message and such a messenger upon the young men of his time who knew him was almost pathetic. Fenger recognized and stimulated the idealism of those brilliant young men who questioned him. To one of them he expressed his admiration by saying baldly, "You can learn something"! He meant, "The way to professional greatness is open for you."

These young men, most of whose heads are now crowned with gray, have never ceased to contrast Fenger's homely worth with the noisy clangour of the men who depended on momentary brilliancy and newspaper éclat instead of patient research.

A very popular teacher of surgery in the nineties was known to condone his suppurations, terming purulent wound secretions serous discharges. When Fenger saw that his wound was infected he threw up his hands and cried, "Pus"!

No surgeon who preceded Fenger—not Gunn or Parkes, who lived with him—or who followed him, as Senn or Murphy, should be even mentioned as having dwelt on the same level with him! Whatever magnitude they possessed was of a different and lower order from the sterling solidity of Fenger's quiet, honest love of truth and amplitude of vision.

It was Fenger, most of all, who taught the profession of our part of the world how to gain wholly new ideals for the prosecution of medical practice and research. It was Bayard Holmes, his most devoted and affectionate pupil, who first brought laboratory methods of teaching into practical application in Chicago.

Only as medicine in America shall remain of world-wide association, inspiration and practice will it be great. The deliberate, inclusive method is the only safe one. The insular inbreeding of the patriotic reference to the work and literature of one land or of a group of countries leads to prompt sterility.

Fenger, a Dane, quoted from any and all nations and languages. His profound surgical lectures were full of references to the labors of all kinds of men in every part of the world. Let us trust that no temptation will henceforth suffice to close our ears and lips to the truth in medicine. Let Fenger's example keep that thought bright in the foreground of our consciousness. The true devotee of medicine finds his deepest satisfaction in the joy of seeking ever new depths

and breadths of knowledge. His own reputation is of secondary moment. Fenger's reputation was that of the still water that runs deep. No inventor of a device that should seem to revolutionize while merely alluring added to his fame. Patient, careful, clinical work, deep literary study and the perpetual examination of specimens gave interest and impulse to his labors.

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MESENTERIC THROMBOSIS*

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Mesenteric thrombosis, or mesenteric vascular occlusion as perhaps it has been better termed by some of the more recent writers, is of interest because of its comparative rarity, the difficulty of diagnosis, and the very poor results of treatment.

Tiedemann in 1843 seems to have been the first to report an instance of this condition. A few years later Virchow discussed the pathology and in 1875 Litten wrote on the clinical aspects. But it was as late as 1895 that we first have a report of a recovery by Elliot. Since then there have been more numerous contributions on this serious condition. Brady in an article published about one year ago says there were about five hundred cases on record with thirty-five recoveries.

Pathologically, the occlusion may be either arterial or venous, the former being more frequent. Venous occlusion may be caused by a descending thrombosis or primarily by some infectious process; especially in the abdomen, appendicitis being most frequent. The etiology of arterial occlusion is most often endocarditis, atheroma of the aorta or some focus of infection. Authors agree, however, that there are many cases where no cause can be found and the absence of endocardial lesions is attributed by many as one of the reasons for the few pre-operative diagnoses of this condition that are made. The superior mesenteric artery which supplies all the small intestine and all of the large bowel except the descending colon, sigmoid and rectum is much more frequently occluded than the inferior. There are three reasons given for this: First, that the vessel is much larger; secondly, that it comes off the aorta higher up; and thirdly, it branches from and runs nearly parallel to the aorta where-

as the inferior comes off at an acute angle. The result of this vascular occlusion is probably most frequently hemorrhagic infarction and the amount of intestine involved depends on the blood vessel obstructed. This condition then progresses to gangrene and often perforation unless the blood supply of the affected loop of bowel is re-established by collateral circulation, which probably occurs more often than we suspect. Klein in his deductions from animal experimentation that has been done says: "In animals, sudden closure of the superior mesenteric artery leads to intestinal infarction. In man, the same result may be expected to follow sudden closure due to the lodgment of an embolus, and that is what actually does occur. It will be remembered, however, that Beckman and Revenna reported that ligation of the superior mesenteric artery was at times without effect. Their findings at least suggest the consideration of a further possibility in man, namely, that sometimes the lodgment of an embolus does not produce infarction. If such an event did actually occur, it might, of course, easily escape detection; certainly during life, when the diagnosis would be most difficult, and also at the autopsy table, where a normal intestine would not direct attention to the mesenteric vessels.

"Concerning a more gradual closure of the superior mesenteric artery as occurs with thrombosis, the animal experiments tell us less. Nevertheless our knowledge of some of the factors of the circulation will lead us to expect results. We know, for instance, that while an embolus of the femoral or iliac arteries often leads to gangrene, a slow closure by a thrombus may have no such effect. And Nunez's case shows that exceptionally even a thrombosis of the abdominal aorta is not followed by gangrene of the extremities. We may, therefore, reasonably assume that inasmuch as known collateral circulatory channels exist, a slow forming thrombus of the superior mesenteric artery and its consequent closure may at times be without effect." If however, the circulation is not re-established, the bowel becomes edematous, a deep plum color, and the peritoneum is glistening. The affected part is filled with some gas and usually considerable fluid is dilated but seldom is there any tension and when the abdomen is opened there is seldom any attempt of the intestine to push out of the wound. In the loop of bowel thus involved there is little or no

*Read before Elgin Academy of Medicine, January 14, 1924.

peristalsis and we have in fact, a paralytic ileus.

There is no symptom complex in mesenteric thrombosis but the picture is that of an acute abdomen and more particularly intestinal obstruction. In some cases, probably those caused by an embolus producing complete occlusion, the symptoms are acute. In other cases the onset may be more gradual, but the end picture is always the same. Pain, very severe and agonizing, is usually the first and most striking symptom. In only one of five cases reported by Ross did the pain come on gradually. The pain which is constant, may be generalized over the entire abdomen or localized in the epigastrium or about the umbilicus. The abdominal findings in the early stages are not as we usually expect to find them with such acute and disabling pain. At this stage there is very seldom any distention and the abdominal wall is flaccid. Later, when as the affected loop becomes more edematous and filled with fluid, it is often possible to palpate a mass. If perforation occurs with a resulting peritonitis, the abdomen becomes rigid and distended, as with the rupture of any abdominal viscus. This was the picture when I first saw the case I have to report. Vomiting is usual in the early stages but tends to decrease as the condition progresses. The vomitus seldom becomes fecal, but some authors think that when it contains blood, a diagnosis of mesenteric thrombosis must be thought of. Because of the lack of peristalsis and the virtual paralytic ileus, there is seldom a voluntary bowel movement but one or two enemas may bring results by emptying the bowel below that involved. Occasionally there may be a diarrhea and also blood in the stools which is suggestive. Generally, most of the patients are from the first greatly prostrated. The pulse becomes rapid and small early and the leukocyte count is usually over 20,000. There is pallor and frequently cyanosis and the temperature is normal or subnormal unless peritonitis has developed. In short the picture is one of a patient in shock with symptoms of grave intra-abdominal pathology.

The diagnosis of mesenteric thrombosis is probably seldom made because of the lack of definite clinical picture. The acute abdomen with lack of physical findings and the temperature in the early stages, the vomiting, constipation, usually suggest a mechanical ileus. In the presence, however, of an endocardial lesion with this clinical picture, mesenteric vascular occlusion should be

considered. In the differential diagnosis, besides mechanical obstruction, we must always consider an ovarian cyst with twisted pedicle and acute pancreatitis. In the case I have just had, which was referred to me by Doctor Milton Jacobs, I leaned to the diagnosis of a perforated abdominal viscus.

Case number 4063. Young man, thirty-four years of age, factory worker by occupation, entered St. Joseph's Hospital September 6, 1923. Family history was negative. He was a man of good habits; bowels had always been regular, and there were no previous diseases except influenza in the Army in 1918. Ten months ago he fell twenty feet to the ground striking on his back and right shoulder, which kept him in bed twelve days and he was unable to work for seven weeks. He gave the following history of the present illness: The day before entering the hospital he had a diarrhea in the morning, the bowels moving three or four times. At 10:30 in the morning he went to his dinner bucket and got a sandwich. After he ate this, he began to have pain across the upper abdomen. The pain became gradually more severe and at noon he was compelled to go home from work. He stayed in bed during the afternoon and ate nothing more during the day. In the evening he was seized with a sudden, cramp-like pain. After this he walked to Doctor Jacob's office. At that time the abdomen was not rigid but there was tenderness over the entire abdomen. He refused to go to the hospital and the Doctor gave him a hypodermic of morphine and he went home. He slept very little during the night and the morphine gave him very little relief from the pain. In the morning he again went to Doctor Jacob's office and this time was prevailed upon to enter the hospital. At this time the abdomen was more rigid and the tenderness was about the same as it had been the evening previous. After he entered the hospital several enemas were given but with no results. Morphine also did not relieve the steady cramp-like pain. The leukocyte count made late in the afternoon was 28,000. When I saw him first, at five o'clock that afternoon, he was sitting on the edge of the bed, rocking back and forth and said his pain in the abdomen was so severe that he could not lie down, and it was only after considerable persuasion that he consented to do so in order that the abdomen could be examined. The abdomen was boardlike in its rigidity and there was tenderness over its entire area but it seemed most pronounced to the right of the umbilicus. No masses could be palpated. Examination of the chest was negative. The heart was normal to size and position and there were no murmurs. His temperature was 99.4, pulse 120. A diagnosis of acute abdomen was made with a leaning toward a perforation of an abdominal viscus, and operation advised. At eight o'clock that evening the abdomen was opened, through a right rectus incision. As soon as the incision was made there was an escape of dark, bloody fluid and it seemed impossible for a minute or two to wipe out the abdominal cavity to see what the pathology was.

It was estimated that there must have been at least two or three quarts of fluid in the abdominal cavity. After the fluid had been sufficiently wiped away, the dark plum-colored intestine was visible below the omentum. The omentum was lifted up and there was found that fully six feet of the ileum was gangrenous, extending from about six inches from the ileocecal valve upward. At the upper end of the dark area there was a small perforation at the junction with the normal bowel. The bowel was soggy, soft and edematous and filled with fluid and gas but was not tense. The mesentery was edematous and the occlusion was readily found. Resection of the involved bowel with about two inches of normal bowel at either end was done and anastomosis made with a Murphy button. One cigarette drain was inserted through the lower end of the wound into the pelvis because of the perforation and the large amount of fluid in the abdominal cavity. The abdominal wound was closed with three rows of sutures, as is our custom. The entire procedure lasted a little less than forty-five minutes. On the day following the operation the patient was perfectly comfortable. He had no pain and no distention, temperature was 100, pulse were 100, and there was very little drainage from the wound. He was thirsty and was given two ounces of water every hour. On the tenth, or the fourth post-operative day, he had no pain, no distention, no temperature, but there was noticeable for the first time, some fecal drainage. He began to be hungry and we gave him liquids and soft foods, with no vegetables or fruits, mostly soft foods that would be assimilated in the stomach. On the eleventh there was a large amount of fecal drainage. The drain was loosened and about one inch of it cut off. The fifteenth the fecal drainage was considerably less. The general condition was steadily improving and he was given a more liberal diet, which still contained no vegetables or fruits. On the sixteenth the drain was entirely removed. On the twenty-second of September the fecal drainage had entirely stopped. September twenty-fifth, the nineteenth post-operative day, he passed the Murphy button—there was still no fecal drainage and a very small amount of pussy drainage. On October first the wound had practically healed, there being just a small sinus in the abdominal wall. He was up and about. On October third he was dismissed from the hospital. He returned to work about the first of November. On November sixteenth he reports that he is gaining in weight, has no pain or discomfort, works without any trouble, appetite is good, but the bowels are moving two or three times daily.

Among the interesting features of this case is first, the fact that there was no heart or vascular lesion that could be demonstrated and the cause could not be determined. Secondly, in this case, as in many cases reported in the literature, the pain was very acute and the most striking symptom, but in the early stages there was no spasm of the muscles of the abdominal wall and very little tenderness in contrast with the severe

pain. He had diarrhea preceding his pain but after the pain began there was no bowel movement. There was also an absence of vomiting in this case. The appearance of the bowel was characteristic; it was edematous and plum-colored and with glistening peritoneum, and when the abdomen was opened the bowels did not push out through the wound. The increased number of bowel movements since his recovery may be due to the large amount of bowel resected.

The treatment of mesenteric thrombosis is of course surgical as soon as the diagnosis of the acute abdomen has been made. Resection of the affected loop with a safe margin of healthy bowel at either end usually offers the best chance of recovery. However, this will depend on the judgment of the operator. In one case reported by Ross and operated on by Doctor John B. Deaver, the bowel was found to be in fair condition. It seemed to Doctor Deaver that collateral circulation was being established and that the bowel would take care of itself. The abdomen was in this case closed without resection and it was the only case in this series reported by Doctor Ross that recovered. Also the general condition of the patient may contraindicate resection even though the bowel be gangrenous and it may seem best to bring the gangrenous loop of intestine out of the abdomen and suture it to the wound, after the method of Mikulicz. While our experience in intestinal resection is exceedingly small compared with that of most writers, we favor intestinal resection wherever it is at all possible and anastomosis with the Murphy button. Our reasons for this feeling are several. First, the anastomosis with the Murphy button, in our hands at least, is more rapid than end to end anastomosis with sutures. And in end to end anastomosis made with sutures it is frequently best to insert a catheter into the bowel above the anastomosis because of the danger of temporary obstruction at the site of anastomosis. The Murphy button makes this opening into the bowel above the line of suture unnecessary, as it maintains the lumen of bowel and allows gases to pass at all times. Again, we believe that resection and anastomosis with the Murphy button is almost as rapid as bringing the diseased area of bowel out of the abdomen and suturing it to the wound. And we believe that the immediate post-operative condition is very much better. The fecal fistula that

we had in the case I have just reported is due probably to the fact that the cigarette drain was placed into the pelvis. We believe that drainage is usually necessary but usually a cigarette drain placed just through the peritoneum to drain the peritoneal cavity is sufficient.

In conclusion, mesenteric thrombosis probably occurs more frequently than we have thought and every surgeon should be prepared to meet this condition when opening an acute abdomen. Again, if the extremely high mortality rate is to be reduced, earlier operations must be done. We have not attained that diagnostic ability which always enables us to differentiate the various types of intestinal obstruction but we are able to recognize that these patients are suffering from a grave intra-abdominal condition and demand immediate surgery.

Pelton Clinic.

REFERENCES

- Loop: Jour. A. M. A., 1921, Vol. LXXVII, p. 869.
 Ross: Annals of Surgery, 1920, Vol. LXXII, p. 121.
 Klein: Surg., Gyn. and Obst., 1921, Vol. XXXIII, p. 385.
 Brady: Archives of Surgery, 1923, Vol. VI, p. 151.
 Mitchell: Annals of Surgery, 1923, Vol. LXXVII, p. 299.

THE DIAGNOSIS AND TREATMENT OF THE TOXEMIAS OF PREGNANCY

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Puerperal infection and the toxemias of pregnancy constitute the principal causes of child-birth mortality. In the United States 22,000 women die annually from the effects of child-birth. Of this tremendous mortality 70 per cent. is preventable.

If medical science is to accomplish all that it can to save mothers and infants, it must provide adequate care during pregnancy as well as during confinement and the puerperium. The prospective mother must be guided through the entire nine months so as to place her in the best possible mental and physical condition for the coming labor and puerperium.

The manifestations of the toxemias of pregnancy occur in about 50 per cent. of pregnant women. So many theories have been advanced as to the cause of this disease that it has been named "the disease of theories." Of all the plausible theories so far advanced all have been found wanting for general application. Up to date there is nothing definitely known to be the un-

derlying cause of the subject under consideration. In a general way we must look upon the symptoms of the toxemias of pregnancy as being caused by either:

- A. A neurosis,
- B. A reflex condition, or
- C. A true toxemic phenomenon.

We may have one, or two, or all three of these factors in the same individual.

To mention a few of the causes that appear to have a direct relation to the malady, are:

- A. Intestinal autointoxication.
- B. Altered internal gland secretion.
- C. Toxins from the product of conception.
- D. Psychoses and neuroses.
- E. Deranged liver and kidney metabolism.
- F. Focal infections.
- G. Reflex causes such as displacements and tumors, generally in connection with the genito-urinary tract and pelvic organs.

Since the cause is not definitely known we may, for the sake of convenience, divide the subject into *early* and *late* toxemias of pregnancy and consider the diagnosis and treatment from a clinical point of view. Each case must be individualized and studied clinically on its own merits in order to make a diagnosis and apply appropriate treatment.

Though we find certain variations from the general rule in many cases, yet for the sake of simplicity in discussion, we may say that the cases of pernicious vomiting and all its lesser manifestations occur mostly during the first half of pregnancy, while those of preeclamptic toxemia, nephritic toxemia, acute yellow atrophy of the liver, and true eclampsia occur more often during the latter half of pregnancy, during labor, or during the puerperium.

In order to make a diagnosis during the earlier months of pregnancy we must first of all establish the fact of pregnancy. This having been determined by the history and the physical examination, we must find out if there are any physical conditions present that may have *some* relation to the cause of the toxemia, as manifested in the mild cases by slight nausea, malaise, nervousness and mild gastro-intestinal symptoms, etc. In the more severe cases there is actual nausea and vomiting, either in the forenoon, afternoon, or in some instances, all day. We must go into the possible neuroses that may enter into the case from family neurotic tendencies, or from

*Read before the Englewood Branch, Chicago Medical Society, March 4, 1924.

inharmonious home life. We must also consider carefully the patient's daily habits of general hygiene, habits of eating, sleeping, out of door exercise, and matters for worry of any kind. It is often impossible to come to a conclusion from the first examination just what the true nature of the toxemia is; whether it is a true neurosis, a toxemia or one of these engrafted upon the other. Often we must re-examine one or more times to determine the correct diagnosis. The diagnosis will frequently be cleared up at once upon the removal of the apparent cause.

We should always bear in mind the strong probability of a neurosis in each and every case in the early months of pregnancy. We should always examine the urine for a possible pyelitis, as a reflex cause, and focus of infection. With all else excluded we look for a true toxemia, caused by a faulty metabolism, and with the other symptoms superimposed.

It is very important to differentiate between the neuroses and the true toxemias. In the former much can be done by suggestion and abortion is not indicated, whereas in cases of true toxemia the pregnancy must not be permitted to go too far. When the diagnosis is established the uterus should be emptied after sufficient counsel has verified the indication.

The treatment of the early toxemias up to the stage of pernicious vomiting is usually simple. It is mostly along hygienic lines, such as suggestions in regard to diet, fluids, rest, exercise in the open air, correction of some injurious habit, proper foot wear, clothing, care of the teeth and mouth, and condition and regularity of the bowels. Drugs are used only for definite symptoms. No drug will relieve the toxemia. When the case proves to be one of pernicious vomiting of whatever cause we must institute more imperative measures. Any displacements of the pelvic organs must be corrected if possible (incarcerated uterus), tumors, or an appendix should be removed when indicated. A pyelitis must be treated and drained if necessary.

The patient is put to bed (preferably in a hospital) in a darkened quiet, cool room, with a competent nurse in attendance. No visitors are allowed. For the first 24 hours nothing is given per mouth. The temperature, pulse, and respiration are taken three times each 24 hours. A specimen of urine is sent to the laboratory every day. This is examined especially for ace-

tone, and diacetic acid. A cleansing enema is given at 7 a. m., and at 8 a. m. the Murphy drip is begun, 20 to 40 drops to the minute, and consisting of either Ringers solution plus $\frac{1}{2}$ to 1 per cent lactose; or normal salt solution (1000 c.c.) plus 2 per cent soda bicarb, 4 per cent sodium bromide, and 1 to 5 per cent glucose. This is to be run in per rectum at stated hours; such as 8 a. m., 2 and 8 p. m. If the patient does not retain it well a suppository consisting of ext. of hyoscyamus and opium is inserted into the rectum after the cleansing enema has all been expelled. This can also be repeated at night if necessary for rest.

During the first 24 hours corpus luteum is administered, preferably intravenously, at 8 a. m. and 6 p. m. (use the clear solution ampoule). This may also be given intramuscularly or subcutaneously. The corpus luteum can be repeated daily if it appears to do good.

Second 24 hours. The orders of the first 24 hours are repeated. If there is no emesis during the second 24 hours, dry toast or something similar with jelly, is given at definite times, such as at 6-10-2-6-10 and 2 a. m. Nothing else is given per mouth this day.

Third 24 hours. The same orders are carried out as on the first and second day. Teaspoonful doses of hot water are given every 10 minutes, and carbohydrates increased in the diet in amount and variety while retained. Cereals, cooked and raw vegetables and fruit juices can be added. Later skim milk (peptonized), chicken, fish, and hard boiled egg (grated) may be given. When water is retained per mouth in sufficient quantity, and the rectum seems to be more or less intolerant, the rectal drip is discontinued.

There are a variety of methods used with more or less satisfactory results. The above treatment as given has proven most satisfactory at the Chicago Lying-In Hospital, and in private cases in the home where I could have arrangements made to carry it out.

In cases where it seems advisable the patient can be fed with a duodenal tube. Before beginning the duodenal feeding the stomach should be washed out with 2 per cent soda bicarb solution. After about one hour the duodenal tube is passed. Liquids must be carefully strained and warm when given, using 6 ounces of any fluid at a time. Each feeding must be preceded by a few ounces

of water to clear the tube. Medicaments when indicated can be added to the fluid used. This method of feeding may be continued for several days at a time. When the patient can retain fluid per mouth the duodenal tube may be removed.

When the above proves inefficient the intravenous method must be considered. For this sterile Ringer's solution to which is added $\frac{1}{2}$ to 1 per cent of lactose, is probably the best.

When the foregoing methods have been carried out and found unsuccessful as evidenced by continued symptoms of starvation, continued vomiting, pulse persisting over 110, blood pressure lowering progressively and pulse small in volume, the 24 hour output of urine diminishing, and the daily findings not improving or getting worse, it becomes necessary to empty the uterus before the toxemia is too far advanced to save the life of the patient. Before proceeding to a therapeutic abortion we should always be protected by sufficient and recognized counsel. (This is a point not always sufficiently appreciated.)

When therapeutic abortion is decided upon and there is no immediate urgency, with a cervix intact, we should initiate the dilatation by introducing into the cervix, under aseptic precautions, a laminaria or seatangle tent with a gauze wick alongside, covered with a sterile rubber finger cot and kept moist with boric acid solution. This can be done without anesthesia. The tent is left in place 24 hours, and at the end of this time the cervix will be softened and patent enough for further dilatation, and removal with the finger or ovum forceps, and curette if necessary. In cases of urgency in primipara hysterotomy is indicated.

TOXEMIAS OF THE LATTER HALF OF PREGNANCY, DURING CHILD BIRTH AND THE PUERPERIUM

It is generally accepted that the underlying cause of both the early and late toxemias is an upset metabolism, yet the clinical manifestations and the autopsy findings are not the same in both. This would lead one to believe that there must be different toxins. Dragstedt of the Northwestern University Medical School, in his 1923 reports on animal experimentation, makes the statement that in the dog the parathyroids have a detoxicating effect on body metabolism, analogous to that of the liver. The toxic end products of protein metabolism are about three times more fatal in the parathyroidectomized pregnant animal than in the non-pregnant animal. The para-

thyroidectomized animal behaves in tetany with convulsions very similar in all respects to eclampsia with convulsions in the human, and these animals can be restored to normal by the intravenous injection of 500 to 800 cc of Ringer's solution plus $\frac{1}{2}$ per cent lactose, daily. This flushes out the toxins from the system. These experiments would tend to show that the additional toxins produced by the product of conception were the cause of throwing the balance against the pregnant animal, because when the uterus was emptied the convulsions ceased. In our observations on the human we know that sometimes the toxic symptoms do not cease after the uterus is emptied. In these cases it is possible that the amount of toxins present in the body is too great to be detoxicated at once after the uterus is emptied.

In taking up the diagnosis of the toxemias of the later months of pregnancy we must consider first the pre-eclamptic and the nephritic toxemias. In the nephritic type we may have a chronic nephritis which may recur with each pregnancy, or it may be a nephritis in pregnancy, that was latent and caused by some other infection, but lit up by the process of pregnancy.

PRE-ECLAMPTIC AND NEPHRITIC TOXEMIA

The nephritic and pre-eclamptic toxemias are so similar in symptomatology, management and treatment that they may be considered together. It is not always simple to make out the differential diagnosis between them. It requires one or more careful examinations, and with a past history of the patient, to determine in which category the case belongs. The earliest observations are in the urinary findings of albumin, hyalin and granular casts, acetone, diacetic acid, and sharply acid urine, progressively diminishing in amount. As long as the albumin is but a trace, casts are absent, and the amount of urine is 50 ounces or more per 24 hours, the patient is ordinarily considered to be in a safe condition.

When the albumin is persistently from 1 to 5 gms. per liter, associated with or without edema, and a blood pressure from normal up to 150 to 200 mm. of mercury, the patient is in imminent danger. When the above symptoms become severe we find the patient complaining of lassitude, headaches, epigastric pain, and visual symptoms, such as spots before the eyes, double vision, and in some instances complete amaurosis. In the nephritic type albuminuric retinitis is a common

finding and the chief diagnostic and outstanding symptom. Nephritic toxemia is a frequent cause of intrauterine death.

When the above mentioned symptoms persist in spite of proper management and treatment eclampsia becomes imminent. The principal symptoms to guide the physician on the case are albumin and casts in the urine, the amount of urine each 24 hours, the blood pressure, and the patient's general condition. Where the patient complains of a sudden blindness, with severe headache, boring epigastric pain, and the blood pressure is around 180 to 200 or more we may expect an eclamptic attack or coma and death, any moment.

Treatment Pre-Eclamptic Toxemia—When the early and mild symptoms are recognized (seen frequently about the 6th, 7th, or 8th month), we place the patient on a restricted diet at once. All meats, eggs in any form, baked beans and dry peas are prohibited. Four to six glasses of water per 24 hours are given at stated times in addition to the other liquids in the food. The urine is measured by the patient for 24 hours, twice a week, and the bowels are moved thoroughly at least once each 24 hours. The patient must report these observations on each visit to the office, at stated times such as 4-3-2 or 1 week intervals, according to the conditions found. The patient's general hygiene and mode of living must be inquired into.

If in spite of these measures we find the case not holding its own or becoming progressively worse, the albumin increasing to one or more grams per liter, the blood pressure going up, with some of the symptoms mentioned, we must resort to more active treatment. The patient is put to bed on a diet restricted to water for the first 24 hours, followed with water and milk in liberal quantities thereafter. The bowels are well cleared by enemas at first, followed with magnesium sulphate in one ounce doses. Sometimes subcutaneous or intravenous medication of 2 or 3 liters per 24 hours is indicated if the patient can not take enough fluids per mouth. Occasionally hot packs are of benefit. If the symptoms persist or become worse after one or more days of observation, we must empty the uterus before eclampsia sets in. With these urgent symptoms present we must empty the uterus no matter what the duration of pregnancy.

In some cases near term, with a viable fetus,

we may do a venesection, withdrawing 600 to 1000 c. c. of blood. This usually relieves all the serious symptoms and the patient goes into normal labor in a few days or more, before a return of the toxemia.

To empty the uterus we must again meet the conditions as we find them. In primipara with an intact cervix we may use a bougie, or the cervix and vagina may be packed with gauze. When the cervix is effaced and the external os dilated or dilatable a small dilating bag may be placed within the cervix after the membranes have either been separated from the lower segment, or have been punctured.

Eclampsia—We may consider eclampsia with or without convulsion as the expression of a profound toxemia during pregnancy, labor, or the puerperium, the cause of which being as yet unknown. It occurs most frequently during the 7th, 8th and 9th months of pregnancy, and nearly as frequently during labor and the lying-in period as during pregnancy. Multiple pregnancies, hydramnios and hydatidiform mole seems to predispose to it.

In eclampsia without convulsions we must consider the possibility of the presence of an acute yellow atrophy of the liver, anuremic poisoning or uremic coma, and phosphoric poisoning. Our chief reliance must be placed on the history of the case where this is obtainable. The conditions may occur in cases of true toxemia and often can not be diagnosed except at autopsy. The treatment of all of them is practically the same, i. e., empty the uterus and combat the toxemia.

Eclampsia with convulsions must be differentiated from hysteria, epilepsy and uremia. In a given case we must rely on the history and a study of the individual. In a case of eclamptic convulsion we usually find a pre-eclamptic history with symptoms leading up to the eclamptic attack. The typical attack begins suddenly; the patient's eyes are fixed, the mouth opens and closes, the pupils are dilated, and the patient suddenly becomes unconscious. The face is drawn to one side by the twitching of the facial muscles.

Then the muscular spasms are observed in the arms, legs, and entire body. The patient foams at the mouth. The spasms last about one or two minutes and are followed by a period of rigidity, arrested respiration, and cyanosis. Then the patient takes a long breath, followed by stertorous

breathing. Cyanosis disappears gradually, and the patient is in coma. This may last an hour or more.

There may be but one spasm, or there may be many. Death may occur with the first convulsion, or the patient may recover after many of these attacks. When the pulse remains strong and not over 100, the outlook is good. If the pulse is rapid and small, and there is deep coma, the outlook is bad.

To differentiate the true eclamptic attack we may say that: In *hysteria* the patient does not bite the tongue, does not become cyanotic, the pupils are not fixed, the eye reflexes are present and the patient responds to acute pain. In *epilepsy* there is a history of previous attacks. In *uremic* convulsions there is previous history of nephritic toxemia with urinary findings.

In some cases an autopsy, alone, will reveal the true nature of the disease.

Treatment of Eclampsia—The all important treatment here, as in the pre-eclamptic toxemia, is prophylaxis. The care and management of pregnancy prior to the occurrence of eclampsia can prevent the greatest majority, and our attempts at prevention can not be too earnest or persistent. It can save more lives than all the care and treatment after the eclampsia has established itself. When it does occur each case must be treated on its own merits. The maternal mortality is about 25 per cent, the fetal about 30 to 50 per cent.

No routine procedure is suitable for all cases. They must be individualized. When the case has been under observation and becomes worse or does not improve, usually the safest treatment is to empty the uterus at once. In case of a primipara with the cervix intact a venesection should be done in some cases. This may be successful. In other cases, under the same conditions, an abdominal section may be advisable. On the other hand those cases in primipara with the cervix effaced, the os dilated or dilatable, and the pelvic measurements and other conditions offering no serious impediment, delivery from below with forceps, or version, is the best treatment. Dührssen's incisions may be made to facilitate delivery. In multipara the tissues become very much softer and dilatable following one or more convulsions, thus facilitating more rapid delivery.

Postpartum Eclampsia—Venesection and eliminative treatment are advised in this condition. But here it would seem that in those patients

who have lost sufficient blood during labor it might be more beneficial if instead of venesection the excess toxins were eliminated by the introduction of 2 or 3 liters per 24 hours of Ringier's solution plus $\frac{1}{2}$ to 1 per cent of lactose given subcutaneously, or if urgent, intravenously.

SUMMARY

1. The underlying cause of the toxemias of pregnancy is not known.
 2. The condition is believed to be caused by a profound metabolic upset in the system.
 3. Neuroses, reflexes, abnormalities, and auto-intoxications are predisposing factors of the toxemia.
 4. The parathyroids and the corpus luteum of pregnancy may have a detoxicating influence similar to that of the liver.
 5. Prophylaxis is the most important form of treatment for both the early and the late toxemias. Only painstaking prenatal care can accomplish this.
 6. In order to reduce the maternal and fetal mortality to the minimum in all the serious forms of the early and late toxemias it is necessary to empty the uterus in time.
- In conclusion it should be stated that since the etiology of the toxemias of pregnancy is unknown, the treatment of these conditions is still varied and quite uncertain. The statements made in this paper are based chiefly on observation of others, and my own personal experience, but are in no sense offered as final.
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AMEBIC ABSCESS OF THE LIVER

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The object of this paper is to report a case of liver abscess which finally cleared up on drainage and emetin injections.

P. A. D., white, 24 years of age and a native of Chicago, was first seen in The Kelley Clinic, in May, 1919, when he consulted us for cough and dyspnea associated with a profuse mucopurulent expectoration; also with chills, fever, sweats, emaciation and pain in the right hypochondriac region.

The family history is negative in every respect. *Previous History*: He had the usual diseases of childhood, but was always in good health up to February, 1917. He is a student and when he

left for Rome, October 9, 1915, he weighed 141 pounds. In the following month he became sick. Owing to the World War, his quarters at this time were cold, damp and poorly ventilated. The food consisted of spaghetti, rice potatoes, bread, butter, wine and meat once a day and he describes it as "half-cooked." In February, 1917, he was seized with severe cramps in the abdomen, especially at night, accompanied by diarrhea, three to six stools daily, containing mucus and blood at times. Following this attack of two weeks' duration, he was apparently in good health until August, when he again had colic and abdominal pain, with diarrhea (but no mucus or blood), lasting for three weeks. The rest of that summer, however, he felt good, gained in weight and returned to Rome.

In August, 1918, he once more became suddenly ill with chills fever, sweats and pain in the right lower chest. The chills continued for several days when he was removed to the hospital; here he was treated for infection of the intestines, and placed on liquid diet for some six weeks. After resuming general diet for about the same length of time, the chills, fever, sweats and the pain in right side of chest returned with severe cough. In two weeks or so the cough became productive, sputum greatly increasing in amount, mucopurulent in character, greenish-yellow—at times brownish or blood-tinged. The indigestion was very bad. He vomited after meals at least once daily and had attacks of constipation alternating with diarrhea. There was a history of severe paroxysms of coughing, when he changed position, also following meals. The amount of sputum was large at this time and during the day, aggregated 4 to 6 ounces.

His stay in the hospital extended from August 15 to September 21, 1918, when, against the advice of his physician, he began his journey back to America, finally reaching New York, May 23, 1919.

Physical Examination (May 24th): The patient was a small emaciated, dyspneic, anemic individual, with all the evidence of a septic infection of long standing.

Head and neck were negative.

Chest: There was impaired resonance throughout lungs with retraction of both apices and practically no excursion bases. Breath sounds were increased over entire chest: more marked in right lower base, posteriorly. Whispered voice

sounds were especially marked in this area, associated with medium and coarse crepitant râles. Fine and medium crepitant râles following cough were present in both apices. The heart was somewhat dilated, tones feeble but regular, with no audible murmurs.

Abdomen: A mass was palpable in the right hypochondrium, extending four finger breadths below the costal arch and definitely outlined below: muscles of abdominal wall were very rigid. Owing to the pain produced on palpation, the area of the liver could not be determined. The spleen was not definitely outlined to percussion. No spinal tenderness was present but "fist percussion" over right lumbar region showed it markedly tender. There was slight pitting on pressure over both ankles. Temperature was 100; respirations 28; pulse 120. Blood pressure was 98 systolic and 70 diastolic. Weight was 102 pounds—a loss of 45 pounds.

Blood examination showed hemoglobin 70; red corpuscles, 3,200,000; white corpuscles, 18,200, with a differential count of neutrophils 75 per cent: large mononuclears 10, small 13, eosinophils 2. Wassermann test was negative. Urine showed specific gravity 1.030: decided trace of albumin; no sugar, diacetic acid or acetone; 6 to 8 granular casts and 8 to 10 pus cells per high-power field.

The sputum was loaded with new-formed pus cells, but three specimens were negative for tubercle bacilli. Stools contained neither amebae nor mucus; Weber test was negative.

On fluoroscopic examination the lungs appeared mottled with dark, cloudy apices lighting up very poorly on deep breathing and following cough. The diaphragm was very high on the right side (fourth interspace). There was practically no excursion of either base. The stomach was atonic, the lesser curvature being below iliac crest. The duodenal cap was small and irregular: peristalsis slow and hardly demonstrable.

A diagnosis was made of abscess in the right hypochondriac region and operation advised. Owing to the predominance of lung findings in both bases over those of the apices and the repeatedly negative sputum examination, the presence of pulmonary tuberculosis was considered rather doubtful.

Operation was performed by Dr. Thomas H. Kelley on May 26, 1919. An incision was made over the tumor mass below the right costal

margin and as soon as the peritoneal cavity was entered, about 32 ounces of chocolate-colored pus escaped. The liver was palpable below the incision, showing marked increase in size, and following the sinus upward a definite cavity in the liver substance could be detected. Drainage was inserted and the abdomen closed. Smears from the pus were negative for bacteria and for amebae.

During his ten days' stay in the hospital he had no fever or chills and indigestion improved. Temperature became normal on the fourth day.

About the middle of June the fever, expectoration of sputum, cough and indigestion returned and he was sent to a sanitarium and then to the country, but returned from each in a miserable condition.

On July 10, his leukocyte count was 27,000 and the sinus was draining freely. His condition gradually passed from bad to worse until August, 1919, when he became bedridden. His weight at this time was 98 pounds. The amount of sputum varied daily from 6 to 8 ounces always negative for tubercle bacilli. Smears from the sinus and from the stools showed no amebae. Hypodermic injections of iron and arsenic were given every other day from July 20 to September 10. At this time there was little hope for recovery. Emetin hydrochloride injections were begun on September 15 and continued daily for ten days, then every other day for twenty days. In a short time the indigestion disappeared; the cough and sputum gradually improved. He increased in weight from 120 pounds on October 9 to 150 on November 11.

The weekly urine examinations were negative until February 28, 1920, when there was a marked reduction for glucose. (His weight at this time 154 pounds.) On March 4 a twenty-four hour specimen—in quantity 2,500 c.c., and with a specific gravity of 1.035—had 2 per cent of glucose.

No change in diet was suggested and he became sugar-free on March 20 and has remained so up to the present time. His weight now is 156 pounds, nearly ten pounds above the best weight before the onset of his illness.

Although the ameba was never found in this case in the feces, nor in the smears from pus or sputum, it is practically certain from the history, course and treatment that the causative organism was the *entameba histolytica*. Statis-

tics show that 80 per cent of hepatic abscesses occurring in sub-tropical climates are caused by this organism. Further analyses show that this causative factor is not, as a rule, found in more than 40 per cent of cases. It is a rather well-known fact that the pus from the amebic abscess is usually sterile, as was shown in this case as well as by the report of the pathologist. At operation the ameba is rarely found unless the abscess cavity is curetted; mere swabbing out with a gauze sponge is not effective. Furthermore, the scrapings must be kept warm and examined at once; forty-eight hours following operation the scrapings are usually negative, the serum which pours out of the sinus seeming to dissolve this most delicate organism. To obtain the ameba from the bowel the proctoscope must be used, scraping the ulcer with a curette in order to obtain a satisfactory specimen.

Since the work of Wheery, Rogers, Vedder *et al.*, (1912-3), we have a therapeutic test of the greatest value in emetin hydrochloride. Given a case of diarrhea of unknown origin: If same clears up in three or four days by the use of emetin it can be stated fairly positively that it was of amebic origin. The same holds true for hepatic abscess of unknown etiology. If this does not improve after drainage, but does after emetin, we may state positively the abscess was caused by this same organism. In large single amebic liver abscesses a well-marked leucocytosis is commonly accompanied by only a slight increase in the percentage of the polymorphonuclears as compared with that usually met with in parenchymatous inflammations, such as pneumonia.

Rogers reports examples of what he terms "presuppurative" or "amebic hepatitis" cured by the use of emetin without any operative intervention. Chopra and Ghosh¹ state that emetin acts in a marvelous manner in hepatitis of amebic origin and undoubtedly prevents abscess formation. The drug is administered in the same manner as for cases of amebic dysentery. After the formation of an abscess it is necessary to aspirate the pus with a large syringe and inject the metin hypodermically until 7 to 12 grains have been given. Open operation is thus avoided and a better prognosis afforded. They emphasize the importance of a correct diagnosis in the treatment

1. Chopra, R. N. and Ghosh, B. N.: Indian Med. Gaz., 1922, 57: 248-253.

of hepatitis. Elliot states that he can readily believe if one were fortunate enough to meet with a case at the incipency of this acute amebic hepatitis, before the formation of pus, the ipecac or emetin could kill the invading organism, but he is loath to believe that drugs could have any effect on an abscess already formed. Carter agrees with this opinion, as does Cantlie.

It is interesting to note the difference of opinion as to the diagnosis of hepatic abscess by use of the exploring needle. For example, Elliott in his report of 116 cases recommends it highly, adding that much valuable time is wasted in suspected cases by disregarding its employment. Physicians in India also advise it. Thurston reports 67 cases in most of which he used aspiration plus emetin; his mortality by this plan has been lower than with the aspiration plus drainage plus emetin, or by free drainage plus emetin.

When Rogers¹ began his work on the use of emetin in 1912, liver abscess was second only to typhoid fever in its deadly effects on the British soldier in India, causing nearly 100 deaths a year. Since the adoption of emetin treatment the death rate has been reduced to one-sixth. He is confident that with its more general use this dread tropical disease will be almost completely obliterated.

Amebic abscess of the liver is of infrequent occurrence in this latitude and when it does occur it is often unrecognized. Brown² reports two cases of dysentery due to the *Entamoeba histolytica*, both occurring in patients living in Nevada. The first case occurred in miner, aged 57, a native of Genoa Italy, who came to this country in 1893 and for the last fifteen years lived in Nevada. In 1906 he developed dysentery which did not yield to treatment until 1918 when an examination of the stools showed *Entamoeba histolytica* and he was cured by the administration of ipecac. In 1919 he began to have epigastric distress, lost 35 pounds in weight and showed general malaise. Examination showed a large tumor in the upper abdomen which filled the epigastric and right hypochondriac regions. The urine was negative except for a small amount of indican and the feces showed neither blood nor ameba. Blood examination showed 8,500 leucocytes, of which 60 per cent were poly-

morphonuclears. Test meal showed an entire absence of hydrochloric acid and no blood was found on repeated examinations. The skin was sallow. X-ray examination showed a large sub-diaphragmatic tumor pushing a normal stomach downward and to the left. Because of the previous history of dysentery cured by ipecac, a diagnosis of amebic abscess of the liver was made and the patient operated on. An abscess was found in the right lobe of the liver from which two pints of thin white pus were drained. No amebae were found in the pus. The gall-bladder was distended and slightly inflamed and there was considerable thickening of the cystic duct. The abscess cavity was irrigated daily with an iodine solution and the patient given by hypodermic 1 cc. of emetin solution daily for 12 days. He recovered uneventfully.

In the second case the dysentery yielded to emetin treatment but no liver abscess developed. He calls attention to the fact that owing to the rarity of amebic abscess of the liver in this latitude there is danger of overlooking the condition unless every facility is used to aid in the diagnosis.

Mallory³ states that amebic dysentery and therefore amebic abscess of the liver may occur in persons who have never been in tropical or subtropical countries. Ludlow⁴ has encountered numerous cases in Korea even though this is a temperate climate.

A word of warning should be sounded as to the potency of emetin. It has been shown by Chopra¹, Low², Dale³, and Dalimier⁴ that the untoward effects following emetin treatment which are usually ascribed to the disease itself are really produced by the toxic effects of overdoses of emetin. Dale performed experiments on healthy animals to determine whether the local effects or the general toxemic effects were due to the emetin or to the disease for which it was given. He administered to cats and rabbits doses of emetin calculated per kilogram of body weight, on the basis of 1½ grains for an average man of 65 kilograms. He found that such a dose could be repeated daily up to a certain point without harmful effects and that usually eight to ten doses could be given. If the drug were continued

1. Mallory. Jour. Amer. Med. Assoc. 76: 1920, 1774

1. Chopra, R. N. and Ghosh, B. N. Ibid.

2. Low. Quoted by Chopra and Ghosh.

3. Dale. Quoted by Chopra and Ghosh.

4. Dalimier. Quoted by Chopra and Ghosh.

1. Rogers, L. Lancet, I, 1922, pp. 463, 569 and 677.

2. Brown, H. J. Calif. State Jour. Med., 1922, p. 298.

beyond this, symptoms of intoxication appeared sooner or later, progressed rapidly, and if the injections were persisted in, death occurred. In rabbits the prominent symptoms were profuse diarrhea and emaciation; in cats somnolence and lethargy, deepening to a terminal coma. Post-mortem examination showed signs of severe gastro-enteritis, congestion of the lungs and damage to the kidneys and liver.

Dalimier, from his experimental work, concluded that the toxic dose for an adult weighing 102 pounds is about 27 grains.

Emetin is rarely given intravenously because of its depressing effect on the cardiac muscle, nor is it often given by mouth because of the vomiting produced.

Chopra and Ghosh believe that the patient should be confined to bed if the drug is being given hypodermically and an accurate record of the pulse rate kept. If there is any marked increase in the pulse rate the drug should be stopped at once. Convalescents from dysentery who have received a course of emetin treatment should be allowed up gradually.

Regarding the chest findings in the case presented, I may state that with the history and excessive amount of moisture in both lower bases and the continued amounts of large quantities of mucopurulent sputum, at no time were tubercle bacilli or amebae found nor were any definite signs of cavity present in the right lower base. At the present time with the lungs practically clear there is no area in the right lower base that would suggest a dense amount of fibrous tissue, which would be expected from a healed abscess had a rupture occurred into the lungs. At present, on fluoroscopic examination the right lung is seen to move about one and one-half inches, while the excursion of the left is slightly greater.

In no place in the literature have I found noted the occurrence of glycosuria in the course of or during convalescence from this disease. Our patient gave a definite reduction for glucose and a twenty-four hour specimen showed 2 per cent of sugar quantitatively; this sugar appeared February 28, 1920. A previous urine report (January 20) showed no sugar and those for six months previously gave no findings indicative of any renal disturbance. It is unfortunate that no blood-sugar determination was made at

the time of the glycosuria. Rare cases of glycosuria are distinguished by an absence of any relation between carbohydrate ingestion and sugar elimination, by the absence of hyperglycemia and by their failure to develop, even after prolonged observation, any characteristics of a true renal glycosuria. Some experienced observers refuse to acknowledge renal diabetes as a clinical entity. There is, however, good evidence to consider the galactosuria of nursing women as a pure renal mellituria.

It is needless to comment on the important place in carbohydrate metabolism occupied by the liver. With the exception of phloridzin and pancreatic diabetes, all other clinical and experimental forms of glycosuria depend in a large measure upon the glycogen content of the liver. Even in phloridzin or pancreatic diabetes since the liver is the only, or at all events the principal seat of glycogenesis, upon its integrity depends glycosuria. Pflüger justly says, without the liver there can be no diabetes. The formation of glycogen from sugar is such a fundamental function of the hepatic tissue that its exercise is maintained under the most adverse conditions. In starving animals the liver builds glycogen up to the time of death; and even in severe diabetes the property is not wholly lost. It is probably then that such function would be severely impaired only in extreme degrees of hepatic disease. Clinical evidence supports this view, for cirrhotic and parenchymatous lesions are frequently found though most investigators agree they are secondary and not the cause. There has been a lively controversy between clinicians as to the existence of a probable "hepatic" diabetes. French authors still continue to describe such cases, although the majority of other clinicians refuse to recognize this form.

However, this case was interesting to us from two standpoints: First, that a glycosuria appeared for a short time during the repair of a badly damaged liver, and secondly, the purely remarkable effect of emetin hydrochloric on the ameba. The results here would warrant its use after drainage of all amebic abscesses and knowing its effect there is reason to expect its administration will shorten convalescence of all similar cases.

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EFFECTS OF EARLY MARRIAGES

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In twelve states of the United States it is legal for a 14-year old boy to marry a 12-year-old girl. In some of the states the statutes set those ages, but in the majority of them, the matter is simply left to the common law, which is a heritage from old English law. That law made fourteen and twelve as the marriageable ages.

If it should be assumed that such a law is a dead letter at the present time, a reference to the U. S. census for 1920 will show that not to be the case. That report shows that there were, at the time the census was taken, 3,326 married boys less than fifteen years of age. And some of those boys were already widowers or divorced. To get such a result there would have to be an average of about ten cases a day of 14-year-old boys getting married. The available reports do not show how many 12-year-old girls get married, but there must be some.

What are the consequences of boys and girls getting married at such early ages? Probably most persons will say that it produces deplorable social conditions. Parents being burdened with children before they themselves are out of childhood leads to poverty, and bad environment, and lack of educational opportunities.

But how about the heredity of children of extremely young parents? Most persons will say that very young parents are not developed enough to produce a good offspring, and let it go at that. Their meaning is that if a person becomes a parent before full growth, the offspring would be imperfect in some physical characteristics. Many persons say that heredity amounts to nothing, and that environment is wholly responsible for the final outcome of the child.

I wonder how far those persons go who say that everything depends upon environment and nothing on heredity. Will they say that a thousand Fuegian children, or a thousand children from India or central Africa, raised in our best conditions, will be equal mentally to a thousand children of American or European parents raised in the same conditions? If so, will they say that dogs given all of the educational opportunities of our schools and colleges will have just as good intellects as our children? If not, what is the difference between dogs and human beings if it is other than heredity?

The facts are that questions of environment, heredity, and the development of powers (mental or physical) are badly mixed in current instruction and current opinions. Environment furnishes opportunity, but it does nothing of itself. Heredity represents the start in life, but it does not determine the final outcome of life. Neither does heredity in one generation determine the heredity of the next. Within limits, heredity may be improved or the reverse, generation by generation. The limits are not in the ultimate amount of improvement or degeneration which can be produced, but in the amount that can be accomplished in one generation. The matters here under consideration are mental and physical powers, but as physical powers are more easily understood than mental ones, we will begin at that point.

We have our pugilists, wrestlers, oarsmen, ball players, and so on. For these men to be successful in these pursuits they must have strong muscles, and muscles which will act quickly. Also, these men must be alert mentally, a fact which shows that the things involved are not solely physical strength.

What kind of environment will give a man strong muscles if he sits still? What possible circumstances or actions on the part of some other persons will make an athlete out of a man who persists in following a sedentary life? Obviously, if a man wants to get strong muscles he must exercise the muscles which it is desired shall be strong. The pupil in school, or the man working on a job for day's wages, may loaf when the boss has his back turned, and he may get away with it, but what man training for an athletic contest will try to deceive nature as to the real amount of work he does and expect to get away with it? If he wants to get strong muscles he must exercise them, and it makes no difference what the environment is.

One thing to be noted here is that a person with a given inheritance will or will not have strong muscles in accordance with whether he does or does not exercise those muscles. Another thing to be noted is that of two persons taking similar amounts of exercise, one will be stronger than the other. From these two things it is evident that a person's muscular powers are the product of his inheritance and his physical training, and that the environment has nothing to do with the matter. It is true that the environ-

ment may induce greater or less exercise, but it is the exercise and not the environment which determines the powers.

Still another thing to be noted is that if exercise of a strenuous character is begun early in life and continued for a considerable time, the powers developed may exceed any possible inheritance. This is always the case when a horse becomes a champion trotter. To become a champion, a horse must have greater trotting power than ever existed in any previous horse.

When we speak of education, the ordinary understanding is that we are referring to the book learning stored up in our memories and which we can use as wanted, but here we mean physiological education. Physical education means the development of powers in the organs exercised, and mental education, from the biological standpoint, means the development of mental powers by mental exercise. Both of these things are acquired characters within the meaning of the verb *to acquire*. Effects produced by the environment are non-biological, and have no bearing on biological inheritance.

The development of physical powers by physical exercise may continue up to near the end of life, as is shown in various animals, particularly the trotting horse. In the same way, mental powers may continue to develop under continued mental exercise in man up to near the end of life. This last has been much confused by the reports of psychological tests. The psychologists say that their tests measure native intelligence, whereas they really measure quickness of response. This quickness of response is determined by native intelligence modified by mental training and the load of remembered thing carried in mind. Our mental powers continue to develop, as is evident from the fact that we can and do carry more and more in our memories as we grow older, but the load itself slows down the quickness of response.

Powers are inherited things. If we want to produce horses having great trotting power we must breed from stock having great trotting power. If we want strong and intelligent hunting dogs, we must breed from animals having those qualities. If we want to raise cows capable of producing great quantities of milk, we must breed from cows having great milk-producing capacity. And so on for other animals and other powers.

But our fast horses came from slow ancestors; our good hunting dogs came from poor hunters; and our cows which produce large quantities of milk came from wild stock capable of producing only small quantities. In each of these cases individuals developed their own powers by exercise to an unusual extent, and then produced offspring. Some individuals among those offspring developed their own powers by exercise to an unusual degree and produced the third generation. Some individuals of the third generation developed their own powers more than did others, and produced the fourth generation. And so on. The improvements came in the lines indicated.

Now those individuals of the first generation had brothers and sisters which developed their powers less than those indicated. The improvements did not come through the offspring of those animals. Some of the individuals of the second generation in the improved line did not exercise their powers as much as did their brothers and sisters mentioned before, and the offspring of those animals went backward instead of forward.

Do not think that in making these statements I am talking through my hat. Some years ago I took the entire list of 2:10 trotters (very fast horses) and traced them back through their sires and dams, their grandsires and granddams, their great-grandsires and great-granddams, and so on step by step to slow original stock. I compared the amount of trotting work performed by these successive ancestors in improving branches with the amount of trotting work in branches which remained practically stationary, and with the amount of trotting work in branches which degenerated after making an advance.

The improvements came through old sires and dams which had been worked hard before being bred, and not through young ones, or through sires and dams used exclusively for breeding purposes. When young sires and dams of improved stock were used for breeding purposes, the descent from those branches invariably went backward. The results found in this investigation were published many years ago in journals devoted to breeding and racing the trotter, and stand unchallenged to the present day.

The same story is told for the setters and the cows. I went through pedigrees of those animals in the same way and got the same results. Improvement came only through those animals which had developed their own powers before re-

producing. Reproduction by young parents invariably carried the descent backward.

We say that from powerful parents we get powerful offspring, and from feeble parents we get feeble offspring.

The psychologists have a system of mental testing which is used successfully on children to determine their mental levels. "Mental level" is a term used to represent biological mental development. A certain amount of mental development represents normal-mindedness in a five-year-old child. A higher degree of mental development represents normal-mindedness in a six-year-old; a still higher degree represents normal-mindedness in a seven-year old; and so on. Because this system does not take into consideration the carried mental load of remembered things, it runs out at about sixteen or eighteen years of age in those tested. There are, however, higher degrees of mental development represented by the 20-year level, the 30-year level, and other levels on to seventy or eighty years of age.

The person who goes through these levels at the ages indicated is normal-minded all his life. The child who has a physical age of ten and a mental age of nine, or eight, or seven, is in some degree sub-normal or feeble-minded. If he is similarly behind all his life, he is sub-normal or feeble-minded all his life. If the child of ten has a mental level of twelve or fourteen he is in some degree powerful-minded, and if he maintains that relationship he is powerful-minded all his life.

The average parent, male and female taken together, is about thirty years of age when the average child is born. Consequently, the normal parent has a mental development corresponding to the 30-year level. But the normal-minded person has one degree of mental development at twenty, a higher degree of mental development at thirty, a still higher one at forty, and so on. From these facts we see that the same normal-minded individual may be, as a parent, feeble-minded in early life, normal-minded at about thirty, and powerful-minded in later life.

When 14-year-old boys marry 12-year-old girls, they immediately become parents and start the production of feeble-minded or sub-normal families. Such boy and girl may be normal-minded as individuals, but they are relatively feeble-minded as parents. They are too far below the normal mental development of parents to be good

parents themselves. It only needs two or three generations of really young parents to establish a feeble-minded family.

The Jukes family begins with Margaret who was the first child of young parents, though the ages of her parents are not known. When Margaret was in her teens she became the mother of an illegitimate son, and when this boy was fifteen years of age he became the father of another boy. This son of a 15-year-old father became the founder of the principal degenerate branch of the Jukes tribe. Observe the three successive generations of very young parents.

During the Revolutionary War, a boy about twenty years of age or less, now known as Martin Kallikak, had an illegitimate son by a girl of unstated age. It is said that this girl was feeble-minded, but that is an assertion made to support a pet theory. There was no mental testing at that time, and no known psychologist ever saw her. But no matter whether she was normal-minded or feeble-minded as an individual, it is fairly evident that both she and Kallikak were comparatively feeble-minded as parents. They were both ten or more years below the average age of parents, and that is considerable taken off of normal mental development.

Martin, Jr., had little or no schooling and married at a comparatively early age. His first son was the product of two generations of immature parents, was said to be feeble-minded, and was the founder of the principal feeble-minded branch of the Kallikak family.

After Martin, Sr., had added about ten years to his mental development over what he had when his illegitimate son was born, he married a girl of fair or good education, and the descendants from this branch were average normal-minded persons. There may have been an original hereditary difference between the two girls, but that is mere assumption and assertion. What does stand out is that in the first case, Kallikak and his partner, by reason of their youthfulness, were feeble-minded as parents, even if they were normal-minded as individuals. In the second case, Kallikak and his new partner were older and more developed, and were probably normal-minded both as individuals and as parents. At least that is what appears from the record, and the record on this point was not strained to fit a theory.

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LUMBAR PUNCTURE TECHNIQUE

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In the thirty-three years (1891-1924), since Quinke introduced lumbar puncture, rachicentesis has advanced to the status of routine so that it now occupies a place of basic importance in diagnosis and therapy in several disease fields.

The recent literature is large and no attempt will be made here to review the history¹, diagnostic indications,²⁻³ therapy³ nor sequelae.⁴⁻⁵

In the hands of adepts, with experience and careful preparation, failures are relatively few. On the other hand, neophytes find numerous obstacles to success, the result being either no fluid, "dry tap" or a "bloody tap" in which the fluid is nearly useless for diagnostic purposes.

Recognizing that there are many varieties of successful technique more or less peculiar to each adept, it is my firm belief that much less experience is necessary in becoming expert if certain fundamentals are thoroughly fixed in the mind of the operator. Though some experience is almost essential, it is not absolutely required. It is surprising how readily some internes and students become fairly sure in a few trials. On the other hand, the most experienced man occasionally encounters failure. More often is this true if he has not been firmly grounded in the fundamentals of the procedure.

These failures are largely avoidable. The supreme importance of securing fluid uncontaminated by blood justifies a discussion of the proper methods and also the causes of failures.

Anatomy.—The puncture objective is the theca (sheath), just inside the posterior intervertebral space. This is a triangle, nearly equilateral with blunted apices, the sides being about one-half inch long in the adult. Above it is bounded by the inferior edges of the superior articular processes and below by the superior edges of the laminae. It is protected from behind by the spinous processes which nearly meet when the spine is hyperextended. Of very great importance are the upper and lower edges of the spinous process. The upper is nearly straight whereas the lower is hooked downward at the distal end and curved upward near its middle part, forming a fossa in which a needle is easily trapped if tilted a bit too much upward. It is therefore

of greatest importance to use the upper edge of the lower spinous process as a guide because this is nearly straight and smooth. A thrust made a little above this spine and nearly horizontal but slightly upward (5 degree),⁶ cannot miss the objective. Many failures are due to exaggerated upward tilting. If the thrust is too far to one side, the needle strikes the articular processes, and if thrust too far forward, it may pierce both sides of the theca and lodge in the body of the vertebra.

In children the spinous processes do not overhand. They are semi-cartilaginous and rudimentary in structure and the interspaces are much narrower.⁷

Choice of the Needle.—In selecting a needle, those combining flexibility, a sizeable head and an obtusely pointed tip are preferable. The Barker or O'Brien needles combine the above qualities.

Flexibility permits some adaption to sudden movements, thereby avoiding tearing of blood vessels and danger of breaking off in the tissues. Such needles also tend to slide by bony obstacles if the point is not directly engaged. A fairly large head holds more firmly especially with wet hands or rubber gloves. An obtuse point gives a more distinct dural snap and tends to push away the blood vessels rather than to cut them. A lumen of size 18 is generally used.

The large, rigid needles (size 20), stand boiling oftener and are of service in very thick fluids. It is well to have one boiled in reserve.

Immobilization.—Nearly total immobilization is essential to success. Wriggling, writhing, jumping patients are almost sure to tear blood vessels or fault the line of puncture. A firm mattress or table is essential.

General gas or ether anesthesia, local infiltration (novocaine 2 per cent), manual holding by assistant and sheet bandage restraint may be used according to circumstance. One must decide in advance the probable degree of pain reaction and proceed accordingly. Apathetic, somnolent, comatose, obtunded or asthetic patients can be held manually or by twisted sheet bandages. The terrified, hysterical, delirious and maniacal are not injured by calming quantities of general anesthetics. We have repeated ether anesthesia seven times in ten days in a boy of nine who was entirely unmanageable by lesser measures. Neal

and DuBois consider a general anesthetic to be dangerous.⁸

J. H. Hess¹² reports the failure of a 21-months-old boy to regain consciousness after A. C. E. narcosis. He died ten days later of tubercular meningitis. Ruben and Alsa Snell are cited in support of his belief that general anesthesia is dangerous. No ill effects, immediate or subsequent, have been observed by us. In general, the degree of fixation should be a bit more than adequate at the first attempt before the fluid is mixed with blood from within the canal. Bloody taps are largely prevented by proper immobilization.

Degree of Flexion.—With the patient lying on his side, head flexed on chest and knees drawn up to the abdomen, a certain degree of spinal flexion is attained. A somewhat lesser degree accompanies the bent-sitting posture. A very acute flexion is often obtained by the holding assistant in his forcible efforts to restrain the patient's movements. The utility of forced hyperflexion is questionable because of its tendency to disarrange the topographical anatomy of the spinous process. It can be said in its favor that compression of the abdomen and bending of the shoulders increase the tension of the fluid thereby making the dural snap more distinct. Also the flushing power of the fluid in washing out needle obstructions is augmented. Little flexion is needed in the lateral route because there is ample space without this increase. In median thrusts, it is more helpful because the spinous process in adults may lap so closely as to offer complete blocking of the puncture path.

Site of the Thrust.—Quinke recommended the median thrust in children and the lateral in adults. The intraspinous ligament must be pierced in the median thrust. It is stronger and firmer in adults and offers some resistance to the needle. In adults the lower border of the spinous process tends to form an overhanging lip which can be avoided by using the upper edge of the process for a guide and by using the lateral route. The smaller intervertebral space in children is more certainly reached by the shorter median thrust. In children under one year, the lateral thrust is often advantageous because of the close approximation of the spinous processes. The muscular masses lying just to the side of the median line are of considerable

thickness and offer a somewhat uncertain calculation angle. One finger breadth is sufficiently lateral. Many use a much greater distance with loss of certainty in depth because of this thick muscle mass. The general tendency is toward the median thrust in both adults and children.

Sterilization.—Surgical asepsis only is safe. Commonly the part is painted with tincture of iodine; the operator's hands are non-surgically washed, a boiled needle is used and few infections follow. But I have seen a recovering epidemic meningitis changed to a fatal septic meningitis by this indifferent technique. Many superficial and a few deep abscesses of soft parts have occurred after the repeated puncture of serum administration. So I repeat that full surgical asepsis can bring no regrets.

Iodinization.—Aside from its value as a sterilizer of skin, iodine can be used for marking the skin topography. Some paint the posterior-superior spine of the ilium so that the locating finger touches only iodinated skin. A line is drawn from the posterior-superior spine of the ilium horizontal to a vertical line connecting the spines of the lumbar vertebrae and a diamond-shaped rectangle at the intersection of these two lines is painted so that the sterilized fingers touch only iodinated skin, thereby avoiding contamination and diagraming relationships even when the patient distorts these by his movements.

Position of the Left Hand.—This horizontal line falls on the third lumbar spine and the next lowest spine is marked by pushing the nail tip of the index finger of the left hand against it so firmly that the most vigorous movement cannot dislocate it. Especially helpful is this firm marking in fatty or edematous sites where sliding of the skin may occur with every movement, thereby confusing the whole topography of the thrust.

Sophian⁹ used the thumb nail to hold against the spinous process with the index finger tip resting against the ilium for a marker. This position seems not so firm as that obtained by holding the index finger straight and stiff against the spinous process. A patient must lie on his right side for a right-handed operator whereas the latter position of the operator's index finger is usable with either side.

Position of the Right Hand.—The right hand grasps the needle shaft in the pen holding position with the needle head pressing firmly against

the palm. It is well to measure off roughly from the point of the needle with the index finger the expected distance to the fluid which can be approximately anticipated. "In children 2.0 to 4.0 cm. up to twelve years and a length varying from 4.1 to 10 cm. over 16 was found."¹¹

These distances are increased in a markedly oblique thrust, in local or general edema, in the obese and in the very muscular. By thrusting slowly, when normal expectancy is reached, the dural snap is more likely to be distinctly felt at which point the thrust is terminated. A certain confidence is gained by knowing the depth of penetration at any part of the thrust.

The two-step thrust is best. Nearly all the pain is felt in the skin, aside from touching the periosteum and nerve bundles,¹⁰ therefore, if one thrusts through the skin, then waits briefly until the pain reaction movements subside, the remaining tissues can be pierced with a minimum of disturbance.

Changing the direction of the needle in the tissue is best done by withdrawing the needle nearly to the skin and repeating the thrust at the corrected angle. There is no surer way of producing a bloody tap than to impart a prying lateral direction to the sharp needle tip, thereby tearing blood vessels which tend naturally to roll out from under a thrust. Everyone who has essayed venepuncture can confirm this. More than one skin puncture is superfluous, for each vertebral interspace, unless done at different sittings when an old puncture wound might contain skin bacteria not removable by surface scrubbing or iodination.

With faultless technique, dry taps sometimes occur. Occlusion of the needle can be removed by withdrawing the obturator rapidly and then re-inserting. Occlusion of the osseous puncture canal occurs from anomalies, hypertrophic arthritis, exostosis, tumors, and like conditions. Occlusion of the subdural space may happen from clotted blood, thick pus, plastic fibrinous or organized exudates in old meningitis and cord tumors. It is best to tap at a higher level ascending one space each tap. Taps as high as the twelfth dorsal interspace have occasioned no untoward results in my experience. Theoretically, the only damage possible is the destruction of a few cells of the posterior horn, a comparatively minor consideration against the major importance of securing fluid or drainage.

Bloody taps may be handled the same way after cleansing the needle or better, using a second one with fresh tubes.

Summary.—A successful tap must give bloodless fluid without anatomic or infection injury. More will be secured if the operator will—

Visualize the anatomy thoroughly.

Use a needle of the Barker type.

Immobilize adequately,

Flex spine moderately,

Mark topography fully,

Hold landmark firmly,

Estimate expected depth,

Use two-step thrust,

Alter direction by rethrusting,

Avoid prying and tearing;

And in dry taps—

Clean needle and

Use higher interspaces;

And in bloody taps—

Change needle and tubes

Use higher interspaces.

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No. 4—Bibliography—

1. Gray, A.: History of Lumber Puncture (Rachicentesis), the Operation and the Idea, Arch. Neurol. and Psychiat., 6:61, July, 1921.
2. Bastron, C. H.: Spinal Puncture in Diagnosis and Treatment, Am. Jour. Syphilis, 5: 463, July, 1921.
3. Harrington, J. J.: Therapeutic and Diagnostic Value and Technique, Jour. Kansas Med. Soc., 17: 246, Sept., 1917.
4. Baar, G.: New Procedure for Prevention of Spinal Puncture, Headache, Med. Record, 98:598, October 9, 1920.
5. McRobert: See page of Arachnoid, Jour. A. M. A., May 11, 1918.
6. Lott, Y. C.: Observations and Technique of Lumbar Puncture in 700 Cases, Med. Record, 92: 717, October 27, 1917.
7. Regan, J. C.: Technic of Lumbar Puncture in Children, Arch. Pediatrics, 36: 129, March, 1919.
8. Neal, J. B. and DuBois, P. L.: Amer. Jour. Dis. Child., an., 1915, p. 1.
9. Sophian, A.: Epidemic Cerebrospinal Meningitis, 1913, p. 206.
10. Lowrey, L. G.: Technique of Lumbar Puncture, Boston Med. and Surg. Jour., 182: 479, May 6, 1920.
11. Levinson, A.: Cerebrospinal Fluid, Mosby Co., St. Louis, 1919, p. 62.
12. Hess, J. H.: Fatal Coma after A. C. E. Arch. of Pediatrics, August, 1906.

HEMATURIA, WITH SPECIAL REFERENCE TO ITS PATHOGENESIS

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It is not my intention to completely catalogue the various causes of hematuria nor to enter into a detailed discussion of its differential diagnosis but rather to attempt to present the more important etiologic factors and the principles of proceeding to their determination.

The occurrence of hematuria often presents a problem which confronts both the internist and

the surgeon, as well as the specialist in the various branches of medicine. The diagnosis of the source and pathology causing this symptom has been until quite recently, difficult and not infrequently impossible. Now with more refined methods of diagnosis, the etiology and anatomic localization of hemorrhage from the urinary tract, can be in the vast majority of cases accurately determined, and the task is decidedly a thankful one.

In a given case of hematuria there are three all-important questions to be answered:

1. Is there actually hematuria present?
2. Where is its source?
3. What pathological condition occasions it at the source?

The first question naturally maintains only for very small amounts of blood, as any marked quantity is readily determined by gross examination. Small amounts are determined by microscopic examination and chemical tests, the simplest of which may easily be carried out at the bedside. A few drops of KOH are added to the suspected urine and boiled; the phosphates are precipitated, which unless blood is present, are whitish gray but with an admixture of blood appear brownish or reddish.

Microscopic control is of course advisable. Even the smallest amount of blood is pathological and its presence should always be explained. Generally on gross examination of a discolored urine one may over-estimate the quantity of admixed blood. Only when coagulation occurs does the amount of blood exceed that of the urine.

In answer to the second question—where is the source of the blood? There are many possibilities. From above downward one may have to exclude the following anatomic localizations:

1. The renal parenchyma.
2. The renal pelvis.
3. The ureter.
4. The bladder.
5. The seminal vesicles.
6. The prostate gland.
7. The urethra posterior and anterior.

The various situations of the source of hemorrhage can usually be determined with accuracy by use of the newer methods of examination; especially cystoscopy, ureteral catheterization, roentgenography, pyelography and urethroscopy;

Calling upon the aid of the bacteriologic and chemical laboratory for assistance in determining the character of the invading organisms in disease of infectious origin and in evaluating kidney functional tests.

The third question of determining the pathological process which is causing bleeding from any given localization calls for the utmost care and precision in diagnostic procedure, but is usually capable of correct solution by proceeding thoroughly and accurately through the various available methods and correlating the findings obtained. Occasionally very experienced surgeons availing themselves of all the modern diagnostic advances find it necessary to resort to exploratory incision for confirmation of their diagnosis. Recourse to exploratory incision under certain circumstances should not stamp the surgeon as an incompetent diagnostician nor does it diminish the great value of the newer procedures for diagnosis.

A discussion in brief of hemorrhage from various sources and an outline of etiology and mode of diagnostic approach will elucidate the point.

RENAL HEMORRHAGE

Renal hemorrhage is usually due to one or more of the following causes: Tumors, calculus, tuberculosis, injury, congestion and acute inflammation.

The first mentioned is often the most difficult of diagnosis and patients frequently go about for long periods with hypernephroma for example, when its presence is not at all suspected because in many cases of hypernephroma bleeding does not take place until quite late in the course, in fact long after metastases are present. Bleeding is often the only symptom in these cases. Pain, loss of weight and enlargement of the kidney on palpation may be entirely absent. The bleeding is similar to that of bladder tumor and is characterized by suddenness of onset and apparent absence of precipitating moment. It is usually painless and profuse, of rather long duration and is not controlled by therapeutic measures in contradistinction to that of calculus. The cystoscope and passage of an ureteral catheter will determine the source of the bleeding as from one or the other kidney; the x-ray may show an enlargement and distortion of the kidney shadow and a pyelogram may show a peculiar distortion or elongation or compression of the pelvis. In

addition, if a palpable enlargement of the kidney is determined the diagnosis is more readily made.

Diagnosis of the type of tumor involving the kidney is of course a very difficult task, and is relatively seldom made and in fact is of little practical value. The most common tumor is hypernephroma.

Renal functional tests may be of relatively little value in the diagnosis of renal tumor because a marked difference in output is not detected except when much renal parenchyma is involved. They should, however, not be neglected.

In tuberculosis of the kidney we frequently observe general symptoms of tuberculosis and suggestive history thereof, either in the patient or members of his family.

Bleeding in tuberculosis of the kidney is chiefly early in the course when erosion of a papilla occurs and gradually diminishes in amount with progress of the disease and the deposit of calcium. Pyuria is usually present and the urine shows an acid reaction. The diagnosis is clinched by finding the tubercle bacillus in the urine obtained by ureteral catheter from one or the other kidney.

Enlargement of the kidney in certain cases can be determined by palpation. Secondary involvement of the bladder in the region of one or the other ureteric orifice is of great diagnostic importance in moderately or more advanced cases and frequently makes the diagnosis.

The bleeding from renal stone may be considered as almost typical, associated as it usually is with characteristic colic. The characteristics of the colic are too well known to require any discussion. In these cases the x-ray is our most valuable mechanical aid. Practically all stones show in the roentgenogram except urates. And if the outline of the kidney shadows is clear the relative position of the stone may be well shown without resorting to other procedures. The kidney is usually tender on deep pressure. Bleeding due to stone is most likely to be confused with that due to tuberculosis of the kidney. A pyelogram will assist materially in confirming the localization of a stone in the pelvis or in one of the calices of the kidney by causing a merging on inclusion of the stone shadow by the shadow cast by the filling fluid. A pyelogram will likewise assist in differentiating a stone in the pelvis

of the right kidney from one in the gall-bladder, a differential diagnostic point which not infrequently must be determined. The hematuria due to stone is seldom profuse, is usually intermittent and often is associated with exercise, or brusque change in position, etc.

Hematuria resulting from injury to the kidney usually is not difficult of diagnosis. Such injuries are usually crushing in nature, as between cars, or when heavy vehicles pass over the body. Injury to other organs frequently coexists. Gun-shot wounds are not uncommon types of kidney trauma in association with lesions of other viscera.

ACUTE NEPHRITIS

Acute nephritis occasioning hematuria is of the so-called glomerular type and at the onset may be difficult to differentiate from the hematuria of tumor. Later in the course casts and albumen are found in quantity after the hematuria has ceased.

This type of bleeding may be very difficult to diagnose because in spite of the pathological process being bilateral the blood may proceed from one side only. Renal functional tests may be likewise of little value, showing only that the process has made greater inroads on one side than on the other. In this condition history is of maximum importance, and taken with the absence of all roentgenographic findings as well as *subjective localizing symptoms*, one should be led to diagnose by exclusion.

Congestion of the kidney when uncomplicated rarely occasions more than isolated red blood corpuscles in the sediment. The urine from a congested kidney is small in quantity, 1,000 c.c. or less, is dark red in color and of high specific gravity. Casts, if found, are of the simple hyaline variety. With improvement of the underlying cardiac condition the urine clears up in the course of a few days.

In wandering kidney hematuria is not infrequently noted from kinking of the pedicle causing a high grade passive congestion. This condition is usually transitory and can usually be determined by palpation or by x-ray, either alone or with shadowgraph catheter.

Lesions of the kidney pelvis causing bleeding therefrom are often associated with the same pathology of the kidney parenchyma. A differential diagnosis between them at all times is not possible. Stone, tuberculosis, tumor, pyelitis,

are the chief etiologic factors. Catheterization of the ureters will differentiate these lesions from those lower in the tract, and permit of bacteriological and chemical examinations of separate urine.

Cystic kidneys may occasionally give rise to hematuria of renal origin.

Time will not permit the discussion of certain general diseases associated with blood in the urine, such as black water fever, scurvy and hemophilia.

Bleeding of ureteric origin, except when caused by stone or those rare cases of tumor and stricture of the ureter, is likewise usually associated with the same type of lesion involving either the kidney parenchyma, pelvis or both. The diagnosis of stone in the ureter is very important from a surgical viewpoint and can be made in the vast majority of cases by x-ray examination in conjunction with the passage into the ureter of a shadowgraph catheter. Bleeding produced by ureteral stone is usually scant, intermittent, and intimately associated with more or less severe colic. Occasionally a ureteritis due to inflammation by contiguity from an inflamed retrocecal appendix will closely simulate a ureteral stone by causing red blood corpuscles to appear in the urine, accompanied by what is apparently the typical colic due to stone. Of course the x-ray findings are negative and other symptoms of appendicitis can be elicited.

Lesions of the bladder causing bleeding may usually be readily diagnosed correctly if there is no obstruction to the passage of the cystoscope. Cystoscopic examination in all cases should readily and satisfactorily clinch the diagnosis.

The pathological entities in the bladder causing bleeding are chiefly tumor, stone, foreign bodies, cystitis, with or without ulceration, and diverticulae, which not infrequently become infected. Trauma is another source of hematuria of bladder origin.

Hemorrhage due to tumor of the bladder is similar to that of tumor of the kidney and is characterized by its sudden onset, long duration and its failure to respond to treatment and its variable amount. The bleeding may persist for weeks or months. Bleeding and subsequent anemia may be the only symptoms; pain is usually absent. That produced by stone is of shorter duration, of lesser amount and is referable to exercise and change of position and is associated with pain and strangury. The cystoscope will

permit of differential diagnosis with the greatest readiness. Both may coexist.

Hematuria due to cystitis is associated with tenesmus frequency and the microscopic finding of pus and micro-organisms as well as red blood corpuscles. In tuberculous cystitis the hemorrhage is usually scant in amount, even in the presence of ulceration. In this group the cystoscope will permit of a proper visual inspection leading to a correct diagnosis.

Several years ago I made a cystoscopic examination of a patient in whom no other cause for a rather profuse bladder hemorrhage could be determined than arteriosclerosis of the bladder wall. A proper regime with lowering of blood pressure and general improvement in his condition caused this hematuria to cease and remain so for at least 23 months.

Hemorrhage from the seminal vesicles is associated with bloody pollutions and terminal hematuria. The objective findings are determined by rectal examination, such as swellings, nodules, and areas of marked tenderness. Urethroscopy of the posterior urethra may reveal inflammation of the veru montanum, especially about the orifices of the ejaculatory ducts. Cystoscopic, x-ray and other examinations for determining lesions of the upper urinary tract will, of course, be negative.

Terminal hematuria due to lesions of the seminal vesicles is to be differentiated chiefly from two other sources below the bladder, cystitis colli or inflammation of the neck of the bladder and tumor of the posterior urethra. These pathological processes may be readily seen with any of the modern posterior or cysto-urethroscopes.

Hemorrhage from the posterior urethra especially when marked is confused with hemorrhage of bladder origin because bleeding from the posterior urethra passes over the internal sphincter and is passed admixed with the bladder content. If, however, as usual the hemorrhage is slight in amount then the first glass voided is clear and the second cloudy or sanguinolent or just at the last moment a few drops of pure blood are emptied.

Terminal hematuria usually indicates that the source of the hemorrhage is just in front of the bladder neck. There are, however, two important exceptions to this rule—first, small bladder stones which at the end of the act of urination

impinge against the sphincter and by the trauma inflicted, cause hemorrhage. The same may occur when prostatic stones protrude into the urethra and also when due to small papillary tumors of the bladder located in the immediate vicinity of the sphincter. In the latter case the easily bleeding papillae are compressed by the internal sphincter and a small vessel may burst giving rise to terminal hematuria. Urethroscopic and cystoscopic examinations will determine the etiology of hemorrhage at this level.

The anterior urethra is an unusual site for hemorrhage. In this location bleeding is usually due to urethritis or injections or irrigations used in treatment of this condition. Diagnosis is easily made by the history and microscopic examinations.

Strictures of the anterior urethra may cause spontaneous hemorrhage. Not infrequently proximal to strictures of the anterior urethra are dilatations, in the walls of which are distended vessels which may rupture and cause hemorrhage. Diagnosis is not difficult and is made by the insertion of an olive tipped bougie which demonstrates a constriction in the course of the canal.

Injuries of the urethra from falls, blows, kicks, and instrumentation may, of course, cause hemorrhage but the history alone usually makes the diagnosis. However, when a history is not obtainable and there is no evidence of trauma to the skin, the diagnosis may not be so simple.

The introduction of a Nelaton catheter will usually clear up the diagnosis. If there is but a small lesion of the urethra the tip will readily glide over it but if the break in continuity is great, the catheter tip engages therein and thus leads one to its location and character. Urethroscopy of an anterior urethra may be necessary and then a visual inspection will confirm the diagnosis.

For lesions of higher origin the cystoscope is necessary for an accurate diagnosis. By this mode of examination one can determine whether the blood is coming from the entrance to the bladder or from the prostate or from the right or left ureteric orifice.

Lesions of the prostate causing bleeding and those of the prostatic urethra are less common and more difficult of diagnosis. Occasionally hemorrhage due to hypertrophy of the prostate occurs and is of sudden onset and often quite profuse. It is usually not associated with pain

but with urinary obstruction or retention. Diagnosis is made by rectal touch and if possible, by cystoscopic or urethroscopic examination.

In conclusion one may state:

1. That in the majority of cases the exact source and pathologic process causing hematuria can be determined.
2. That the careful employment of modern urologic diagnostic procedures has made this possible.
3. That the bacteriologic and chemical laboratories are important adjuncts.
4. That only after an intelligent evaluation of all available data can rational therapeutic measures be instituted.

VISUAL DISTURBANCE OF IMPORTANCE TO THE SOCIAL WORKER*

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The functions of the eye may be discussed from two standpoints: 1. That of a purely optical instrument, and 2. That of an organ of the body. Linked with the latter, of a subordinate importance from the standpoint of the physician, but often of greater importance from the standpoint of the patient, is its cosmetic feature, and this we may call 2a.

1. The eye is an instrument for collecting rays of light and focussing them more or less accurately upon a structure where they excite nerve impulses, which are carried to the brain and there translated into the sensation which we call sight or vision. The focussing occurs as the rays pass through the cornea and lens, and the structure upon which they are focussed is called the retina. By virtue of the fact that the former two are curved, transparent structures, rays of light passing through them are deflected from their former straight course and are made to converge. If they were formerly parallel, they are made convergent. If they were already convergent, this convergence is increased. If they were divergent, this divergence is decreased, and in certain cases may be made parallelism or even convergence. Since in Nature there are no convergent rays, we may disregard this possibility and speak only of parallel and divergent rays.

Since there is but one condition of parallelism

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of rays, while there is an infinite number of possibilities of divergence of rays of light as they enter the eye, depending on the distance of the object from the eye, we consider the "standard" eye to be one where the relation between the focussing or refractive power of the cornea and lens and their distance from the retina is such, that parallel rays, after passing through the former, are brought to a focus or point on the latter. This kind of an eye is also called the emmetropic eye. If an object is more than 20 feet away from the eye, rays of light coming from any point on its surface are practically parallel by the time they reach the eye, so an emmetropic eye is one adapted to see distinctly distant objects of a certain size or greater. It is impossible to explain here the reason for this limitation of size, and it will have to be accepted as true. An emmetropic eye is not necessarily a "normal" eye. It may be suffering from one or more of a great variety of diseases, and may be absolutely blind. The term emmetropia merely designates its refraction.

This "standard" relation between the refractive surfaces of the eye and the retina may be disturbed in one of three ways, and to this disturbed relationship is given the general name of ametropia. (a) Parallel rays may be focussed *behind* the retina, either because of a lessened refraction, or a decrease in the anteroposterior distance of the eyeball, a condition called hyperopia or hypermetropia. (b) They may be focussed in *front* of the retina, because of an increased refraction; or an increased anteroposterior diameter, a condition called myopia. (c) They may be focussed partially in *front*, *on* or *behind* the retina, a condition called astigmatism. The hyperopic eye is sometimes called the farsighted eye, and the myopic the nearsighted, but these terms are incorrect, and should not be used.

A hyperopic eye is adapted to receive convergent rays, which, however, do not exist in Nature. Such an eye must alter the direction of *all* rays reaching it, by increasing the strength of its lens by means of the act of accommodation. Whenever this is painful or insufficient, it must be supplemented by the wearing of appropriate lenses. An emmetropic eye requires an act of accommodation or the use of glasses to enable it to see distinctly objects nearer than 20 feet, since rays from such an object are divergent and

not parallel. A myopic eye is adapted for a definite distance, closer to the eye than 20 feet. For all distances further away, a glass is required, and for all distances closer, a glass or an effort of accommodation is needed for distinct vision. In all cases of astigmatism, sooner or later a glass will be necessary for accurate and comfortable vision. With increasing age, all eyes undergo a diminution in the power of accommodation, until there comes a time when this is no longer sufficient for the work required for near vision, and must be supplemented by a glass. This condition is called presbyopia, and appears early in hyperopia, and about the age of 40 in emmetropia and myopia. In the latter, however, the amount of myopia may adapt the eye for close vision, necessitating only a glass for far vision.

From what has been said, it is evident that the need for wearing glasses is not dependent on the age or the sex of the individual, or the good will of the oculist, but solely on the varying relations between the refractive power of the cornea and lens, the anteroposterior diameter of the eyeball, the distance at which the object is to be seen distinctly, and the need of the patient for distinct vision. For example, a stenographer would be more likely to require glasses for near vision than a peddler of the same age and the same refractive error. Also, other factors, such as lighting enter into consideration.

The symptoms caused by ametropia and presbyopia are referred either to the eye itself or to some other organ. Among the former are pain in and around the eye, and inability to see well for either distance or near or both. Symptoms referred to other organs include headache, somnolence or insomnia, nausea, dizziness, etc. Not every patient showing such symptoms is the subject of a refractive error, but so many are, that one of the first things to do is to rule out or confirm the need for glasses.

2. So far, I have been discussing the eye as though it were an optical apparatus. But it is more than that—it is a living organ, liable to be affected by pathologic conditions originating in itself or elsewhere in the body. So far as the local conditions are concerned, any disease of the eye if neglected will produce either directly or indirectly a loss of sight. For example, a grain of dust will produce an indirect loss of vision by causing a flow of tears and an inability

to open the eye. But if not removed under aseptic precautions, an ulcer may develop which may terminate in either loss of the eye or a corneal scar, with more or less loss of sight.

In general, inflammations of the conjunctiva are more disagreeable than dangerous, especially if treated in time. But there are two forms of conjunctivitis which deserve more than a passing word, on account of their sociologic and economic importance, viz., trachoma or granulated lids, and purulent or gonorrheal conjunctivitis. Trachoma is an infectious disease, is very prevalent in certain areas of this and other countries, and if not energetically treated, will end in great distortion of the lids and ulceration and scarring of the cornea, with great pain, and loss of sight up to complete blindness. Under proper treatment it can be cured, checked or ameliorated, depending on the stage in which it is seen. It is never too late to try, and frequently the patient can be made comfortable even if his sight cannot be restored. In addition to the treatment of the patient, his relatives and companions should be warned of the contagious nature of the disease and cautioned to take the necessary precautions.

Gonorrheal conjunctivitis, or gonorrheal ophthalmia, presents itself in two forms: That of the infant, called blennorrhea neonatorum, and of the adult, called blennorrhea adultorum. The latter is a very serious condition, always resulting in more or less scarring of the cornea and loss of sight, and frequently in the necessity of removing the eye. The greatest care is necessary to prevent the other eye from becoming infected. On the other hand, blennorrhea neonatorum, under the proper treatment, almost invariably results in a cure. I have never seen a case that did not turn out favorably if the treatment was started before an ulcer developed and carried out faithfully. Instead of this disease being one of the most frequent causes of blindness, it should be one of the rarest. But this favorable prognosis is dependent on the early and most careful treatment by the doctor and mother or nurse. Incidentally, there is no excuse for the existence of the disease, as the proper prophylaxis at birth and subsequent precaution will practically invariably prevent it from developing.

Inflammations of the cornea, to which the name keratitis is given, are always accompanied by decrease in vision while the disease is in the active stage. As it progresses toward a cure, the

vision improves and may return to practically normal. The opaque cornea may clear up, so that it appears normal on inspection. This favorable result is the exception, however, there being usually some opacity of the cornea and more or less loss of vision. Especially is this true in cases of ulcer, which may heal with a slight scar, or may progress to complete destruction of the eyeball.

From a sociologic standpoint, the most important form of keratitis is the parenchymatous. As it is almost always of syphilitic origin, care for the other members of the family must be instituted, as well as for the individual affected, who must be treated and kept under observation long after the local disease has been cured.

Another form which deserves special mention is phlyctenular keratitis. This is usually found in children, and when seen early, can be cured in a few days. When the case has been neglected, ulceration may develop and progress to loss of the eye. Early, energetic and correct treatment will prevent this untoward result.

Inflammations of the sclera, called scleritis, are chronic and of bad prognosis, unless the underlying cause can be found and eradicated. It may result in great distortion of the eyeball and loss of sight.

Inflammations of the iris, called iritis, are disturbing to the patient, chiefly because of the pain which they cause, but they may result in great loss of sight. Here, too, an early and thorough treatment is necessary to prevent an unhappy result. This treatment must not only be local, but must be directed to the underlying cause. This, in the great majority of cases, is syphilis or tuberculosis, but very frequently it is due to infections around the teeth, or of the tonsil or some other part of the body. Inflammations of the ciliary body, called cyclitis, are usually accompanied by an iritis, and the same remarks apply to the former as to the latter, except that the symptoms are more severe and the prognosis is much worse in cyclitis.

Probably the ocular condition most dreaded by the patient is that known as cataract, and yet, in the hands of a capable operator, and barring accidents due to the lack of self-control on the part of the patient, the great majority of patients operated on recover anywhere from useful to almost perfect vision. Sometimes a secondary operation must be performed, and

always the patient must wear glasses, but compared to some of the other diseases of the eye presenting a similar symptom of loss of sight, the patient should be elated instead of depressed when the diagnosis of cataract is made. Many a person is blind and helpless today because of a fear of operation which was justified before the days of asepsis and anesthetics, and which has been carried over into the present times along with many other fears and superstitions of the past.

I am going into the question of cataract a little more fully than in the case of other diseases, hoping that from you as a center, information may be disseminated which will tend to counteract this fear and induce these unfortunate ones to give the oculist a chance to restore their sight.

Cataract is nothing more or less than an opacification of the lens or its capsule. The result of this is that rays of light are prevented from entering the eye, resulting in a loss of sight proportionate to the thickness and central location of the opacity. The same effect can be produced in a normal eye by holding a frosted glass in front of it. The treatment consists in the equivalent of removing the frosted glass—namely, in removing the opaque lens from the interior of the eye. If this is done successfully, the lost refractive power of the lens is compensated for by the use of a strong glass, and the vision of the patient may reach normal. Of course there is the inconvenience of a heavy glass, a smaller visual field, absence of accommodation, etc., but it is certainly a great improvement over a condition approximating blindness.

Cataract may appear at any age, but it is usually found in old people. It is frequently inherited, and families have been reported where the disease has reappeared in several successive generations, often at an increasingly earlier age. It therefore becomes a very pertinent question whether members of such families should be allowed to marry and propagate this taint. I do not mean that every case, or even a large number of cases of cataract are hereditary, but a sufficiently large number are, to make this a question worthy of consideration. Where the disease appears in childhood, it should be operated on even if found in only one eye, as the failure of the eye to take part in vision may lead to a condition of blindness from disuse,

which may make a great difference in the life of the patient if he should lose the use of his good eye.

Many people complain of floating spots in front of the eye. There are two varieties of these spots. One kind is present in practically every eye, but we are so accustomed to them that we disregard them. They become perceptible and annoying when the general health is below par, or in cases of eyestrain, or asthenopia, as it is called. Although they are physiologic, the fact that the patient complains of such spots requires that the eyes be examined ophthalmoscopically to determine their nature. The second kind is the result of intraocular hemorrhage or inflammation. They are also present in cases of high myopia, as the result of retinoid changes. They are more or less amenable to treatment, depending on the nature of the disease causing them.

Inflammations of the retina are called retinitis. When the choroid is also involved, they are called retinochoroiditis, and when the optic nerve is affected at the same time, they are called neuroretinitis. A retinitis is frequently the result of a pathologic condition elsewhere in the body, such as diabetes, and the condition of its vessels may be the earliest sign of a general arteriosclerosis. Any condition involving the retina is always accompanied by more or less loss of sight, the amount depending on its location and severity, but especially on its location. When the lesion affects the macular region, which is the area of greatest vision, the loss of central vision is very pronounced, but peripheral vision may be well retained. On the other hand, if the lesion is in the periphery, central vision may be good, but peripheral vision may be greatly contracted. If the retina is detached from the underlying choroid, there is a localized loss of sight in the part of the visual field corresponding to it. That is, if the lower inner part of the retina is detached, the upper outer part of the field will be lost.

The optic nerve may be affected as the result of a disease of the retina and choroid, or as the result of a disease of the brain, or of a disease of the nerve itself. In any case, the sequel is loss of sight, varying with the amount of atrophy which follows. Sometimes there is a swelling of the optic nerve where it enters the eyeball, due to increase in the intracranial pressure, and

leading to the diagnosis of brain abscess or tumor. Owing to the peculiar anatomic arrangement of the optic nerve fibers, lesions of the nerve may result in total blindness of one eye, or blindness of the same or opposite halves of both eyes, or more or less symmetric areas of blindness in the two eyes. The discs, themselves, may look normal at this time, but later will appear white and atrophic.

The choroid is frequently the seat of disease, but usually fails to show marked symptoms, unless the location of the lesion is near the area of greatest vision of the retina, or its extent so great as to materially interfere with the nutrition of the overlying retina. Then, of course, there is more or less loss of sight. Another symptom is the presence of spots floating in front of the eye. The absence of symptoms is very unfortunate, as the disease is frequently not discovered until it has progressed so far that it finally results in great loss of sight. Every patient who is tested for glasses should be examined ophthalmoscopically, for this reason.

One of the most frequent and dangerous affections of the eye is the disease called glaucoma. There are two chief forms—(a) the acute, and (b) the chronic simple. The former is the more terrifying to the patient, being accompanied by much pain and rapid loss of sight, and for that reason he is more likely to submit to the proper treatment, which is operation. The prognosis in this form is, therefore, good, for it is very rarely that the operation fails to check the disease and reestablish the sight with but slight loss. The operation must, however, be performed early in the disease to yield the best results.

On the other hand, the chronic simple glaucoma is a disease of slow development and vague early symptoms, so that it may be well advanced before the headaches or some other symptom takes the patient to the oculist. The early loss of vision is chiefly of the peripheral variety, and may pass unnoticed until great destruction has been wrought by the disease. It is especially this disease, whose symptoms can be recognized only by the oculist, that makes it imperative that refraction should be done only by men trained in the use of the ophthalmoscope. The time lost in trying out glasses fitted by nonmedical men is often enough to permit so much damage to the intraocular structures, that when the patient does consult an oculist, it is too late to save much if

any sight. The vagueness of the symptoms frequently induce the patient to disregard the advice of the physician, and thus more time is lost. And in this disease, the best hope is for early, continuous and if necessary prolonged treatment, whether this takes the form of medical or surgical aid. I cannot too strongly emphasize the dangerous nature of this disease and the necessity of prompt and careful treatment, if the eye is not to become blind. It is a far more serious condition than cataract—in fact, there are few diseases of the eye which approach it in danger of blindness.

2a. There are several diseases of the eye which are of importance from a cosmetic standpoint. Of these, I will speak of only two, because they are the most common. The first is really a group of conditions, comprising those where for any reason there is the necessity of removing the eye. The fear of deformity often causes the patient, or his parents in the case of a child, to refuse the operation until the other eye or the life of the patient is lost as the result of the delay. The social worker can be of great assistance to the physician in such cases, as they can use arguments of a nonmedical nature which are barred to the oculist. For instance, they can urge the great learning and skill of the operator, and speak of other successful cases. The conscientious physician advocates the removal of the eye only when he is convinced that it is to the best interest of the patient, and under such circumstances, an artificial eye is of as much service and is far less dangerous than the natural one. Artificial eyes are now so well made, that it is frequently impossible for the physician himself, without careful examination, to tell which eye has been removed.

The other cosmetic problem concerns the patients with cross eye or strabismus. It is of course an ocular problem, also, because one or both eyes are diseased or have a refractive error, or both. But the thing that usually brings the patient to the oculist is the visual disturbance, not of the patient, but of his friends and relatives. He comes to have his looks and not his sight, improved. But whatever the reason, it is right that the condition be treated and the position of the eyes made normal if possible. The great majority of these patients require glasses for constant wear, and in a large number, this alone will bring about a decided amelioration,

if not a complete cure, of the strabismus. If not, some form of operation will usually accomplish the desired result. Here, as in so many ocular conditions, the earlier the treatment, the better the prognosis, and the less drastic the remedy required.

In the foregoing discussion I have given a brief survey of some of the conditions affecting the sight, and an indication of what might be expected from their treatment. Before concluding my remarks, I want to say a few words about diseases elsewhere in the body which affect the eye. In general, any disease which causes a general weakness has an influence upon the sight by affecting the muscle of accommodation. For example, a patient who has had typhoid fever may find, upon his convalescence, that he can no longer read as long or as comfortably as formerly. This may be due to a local disease resulting from the typhoid fever, but is usually simply a manifestation of a weakness of the muscle controlling the shape of the lens, and requires for its correction a longer or shorter period of wearing glasses. On the other hand, measles, scarlatina, smallpox, etc., sometimes cause weakness of accommodation, but usually cause an actual lesion of the eyeball or lids. A third group of diseases exert their malignant influence through the absorption of their toxins into the general circulation, through which they reach the eye. Examples of these are abscesses at the roots of teeth, and absorption from the intestines, tonsils and nasal sinuses. They usually involve the iris, ciliary body and the choroid. A fourth group comprises especially syphilis and tuberculosis. Almost every form of eye disease may be caused by syphilis, and tuberculosis is not far behind it in the number of diseases to its discredit. Therefore, they should be searched for, especially in cases where the etiology is at all obscure. On the other hand, the presence of either one does not necessarily prove that the disease present is caused by it. The oculist is not prepared to investigate the presence of such diseases, and must refer his patients to a dentist, internist, etc. The patient, however, often delays his cure by failure to undergo the desired examination. The social worker can be of the greatest aid by following up such cases and urging that they follow out the recommendations of the oculist.

If I might even more briefly summarize what I have said—

1. The wearing of correcting lenses is made necessary by the inability of the cornea and lens to focus rays of light properly upon the retina.

2. The great majority of diseases of the eye are curable if seen early and properly treated. If neglected, all cause either great discomfort or actual decrease in vision.

3. When an operation is indicated, it should be performed as soon as possible. It is advised only when actually necessary, and then a delay may mean loss of sight in the eye under discussion, involvement of the other eye, or even loss of life.

4. Cataract is feared too much—glaucoma too little.

5. The ocular disease may be a manifestation of disease elsewhere in the body. The patient should aid the physician by submitting to such examinations as he suggests, and the social worker can aid by inducing the patient to carry out the advice of the physician.

LEADERSHIP IN THE MODERN AGE*

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The history of the world is, primarily, a history of human beings. Properly speaking, there is no such thing as history until the invention of a written language.

The ancient world lies in obscurity. There is no way by which we can solve the mystery of those "dim and tractless ages" when countless tribes wandered over the face of the earth in quest of food, wealth, homes and happiness, because no records have been preserved, in the archives of men, to tell the story of the events that happened in the childhood of the human race.

Only here and there have we been able to find a bare footprint on a rock, or some rude instrument of agriculture or warfare which the ravages of time have not been able, altogether, to obliterate.

Not until the time arrived, in the course of human evolution, when the ancient races of the earth began to devise the Cuneiform and the Sanskrit from the crude pictures of the objects about them, was there any history proper, but only the traditions of men handed down from

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one generation to another by means of mutterings and gestures that bespoke of primeval days.

But with the invention of a *written* language, certain events of National importance, such as the Laws of the Nation and the Conquests of the Kings, came to be inscribed on tablets of stone and set up in prominent places throughout the kingdoms where all might know what was expected of them as subjects of such and such a king.

It is only natural then that we should have, in the most ancient documents, only the record of the acts of the kings and their military leaders, and not that of the people, who seem to us, in this age of the world, to have existed chiefly, if not solely, for the sake of the wealth and the prestige of their kings.

Little do we know today of the common mass of humanity that have fought the battles, tilled the soil and tended their flocks and herds along the banks of the Nile and the Euphrates. There remains of the ancient world only the record of Kings: Their magnificent palaces, temples and tombs, the ruins of which alone remain to mark the places where once flourished the mightiest kingdoms of the ancient world. The names of the men who carved those stones and scaled those ancient walls are all forgotten, and only the names of the Leaders of the nations remain.

Lincoln once said that God must have loved the common people because He made so many of them. But to the archaeologist, it would seem that no provision has been made whereby their memory should be preserved beyond a few fleeting generations. No hymns are sung to their praise. No pyramids or crumbling monuments mark their resting place. No inscriptions tell of their conquest of fields and forests, or of their daily toil to erect for themselves a home where they might rear their children in domestic felicity, and enjoy the blessings of peace, prosperity and happiness. Only the leaders of the nations of the earth have attained an immortal memory.

The history of the world resolves itself, in the course of a few generations, into a history of the deeds of the comparatively few men who, either through true greatness of character or through the fortunes of a kingly birth, have been able to "lord it" over the fortunes of the rest of the human race.

One man has said that all of us might have

attained unto a place of renown in the world if we had been a little more careful in the choice of our ancestors, and had chosen "purple" blood in our veins in place of red. But who is there that has ever breathed the air of freedom who would care to make the exchange?

When we come, now, to apply the principle of Leadership to the Modern Age, we are aware, at once, of the fact that leadership today does not depend upon inherited rights but upon rights that have been acquired by the individual through a persistent application of one's faculties to specific problems. This new form of leadership does not rest upon any physical basis, nor is it exercised by means of any visible authority. It depends for its authority upon the intellectual and the moral faculties of men. It does not say, in the words of the ex-Kaiser of Germany, "There is but one law and that is my will;" but "There is but one law and that is truth, and one application of that law and that is justice."

One hundred and thirty years ago there was published in England a small pamphlet, by Thomas Paine, entitled "The Rights of Man." In this pamphlet the author repudiated the doctrine of Inherited Rights. He declared that there were no rights except natural rights; that every human being had equal rights in the matter of leadership, the exercise of which depends solely upon ability. "Those should rule," he said, "who are best fitted naturally in body and mind to administer authority in justice to all."

From that day to this, a new type of leadership has been struggling for supremacy. In our own country we had seen the triumph of this new leadership in case after case of men who have risen from obscurity to places of prominence and authority by means of hard work and natural ability directly applied to specific problems. The whole world looks upon Lincoln as the supreme example of such leadership in a political sense, and other cases could be cited, less prominent it may be, but just as important and necessary in the advancement of the race, where men, in other fields of usefulness, have attained distinction in leadership through an ardent devotion to a high and unselfish purpose. Such is the leadership that is needed in America today. Not in politics only, but in the industrial world, in the professions, in fact, in every phase of our modern systematized and institutionalized society.

Roger Babson, the noted statistician, said a few days ago in St. Louis, that, in his opinion, 98 per cent of the American people were to be classed as inefficient. That only 2 per cent of our population are capable of leadership in the modern age. The rest of mankind, he says, are undeveloped mentally and spiritually, asleep to their own individual possibilities.

Ninety-eight out of every one hundred boys and girls in America today, he says, will live and die, without ever waking within them that power which is able to transform a dormant soul into an efficient human asset. For illustration, he cites us to the efficiency of certain industries in utilizing their waste products. From petroleum, twenty different products are obtained; from coal 2 products, and in the slaughter of hogs he declares that every single product is utilized except the dying squeal.

But when our attentions are turned to the wastefulness of our human resources, through preventable disease and accidents, through unemployment and poverty, and through illiteracy, the statistics are disappointing, not to say alarming.

More money is spent for luxuries in America than is spent for education. We breed up our stock and we prune and spray our fruit trees, but when it comes to the training of our boys and girls for leadership in the modern age, with all its competition and its self-centered ambitions, we are not even holding our own as compared with the other nations of the earth. We have been reduced to ninth place in point of literacy, and while illiteracy is being reduced in the southern states, it is increasing in the North.

The public mind has turned recently, as never before, towards the question of disarmament. We have been told that 93 per cent of the expenses of the national government are required to take care of the expenses of past wars and to prepare for war in the future. Seven per cent of the present expenses of the government, they tell us, would take care of all the constructive work which the government is doing at the present time. This is a question for the serious consideration of every citizen of the United States.

But, at the same time, let it be understood that this is not a question to be settled on sentimental grounds. Sentiment on the liquor question could never have effected the adoption of the eighteenth amendment to the Constitution. It

takes more than tears to produce laws. Prohibition became an economic question before its enactment on the statute books of the nation.

Pure sentiment on the question of disarmament would lead us to the position of Dr. Frank Crane, in an article in *Current Opinion* a few months ago, in which he advocated the sinking of every United States naval vessel in mid-ocean, in the hope that the other nations of the earth would follow our magnanimous example. If such be his honest convictions he does not understand the modern age. He fails to realize that such a move on the part of the United States would be looked upon by the other great powers as an act of foolish sentiment, if not insanity.

Let the other nations show some signs of disarmament. Until they do, it will behoove us to make progress slowly on the whole question of disarmament, which is, in itself, a highly commendable principle, if the time ever comes when the nations are willing to settle their disputes by arbitration in justice to all concerned. There is need for sane, rather than sentimental, leadership in the settlement of these great questions that are going to confront the coming generations.

History reveals to us the fact that every age demands a different type of leadership. The first question then for us to decide would be, What sort of an age is this into which we are entering? We are all ready to admit that it is a critical age; in fact, the most critical for the future of American principles that the Sons of Freedom have ever seen. Some call it materialistic! They will tell us that the only God that is worshipped in America today is the God of Wealth. They are ready to show us that the young men will sell their honor and the young girl her virtue for gold. They will tell us that industry is not concerned whether men are made better or worse by their daily toil, so long as goods are manufactured.

But I cannot agree altogether with these broad generalizations. Of course the manufacturer demands a profit for his goods, and in some cases, no doubt, the profits of industry could be more equitably distributed among those whose brawn as well as brain enters into the production of manufactured goods. But the industries of the country are not oblivious to the fact that a happy and prosperous body of workmen reacts directly upon the output of the concern. They

are all realizing that wholesome working conditions, rest rooms and recreation grounds are actually a financial asset to their institution. They know that good wages and steady employment provide greater demands for manufactured goods. People are beginning to realize that it is the general, or average, wealth of the people rather than the extremes of wealth and poverty that determine the commercial prosperity of a nation.

The same is true of education. It is the general literacy average throughout the nation that determines our educational efficiency. And this, if we are to accept the recent reports, is surprisingly low. In the army, it is said that the average intelligence fell below that of the seventh grade in our public schools. Leaders are needed, and desperately needed, in the coming age to bring the general average of wealth and of education to a higher level.

On the other hand, you will hear many who claim that we are living in the whirl of an unwarranted idealism. That our leaders are busying themselves with abstractions rather than realities. And no doubt there are grounds for such an assumption. Idealism acts like a narcotic on the masses of the people. Such utopian schemes as we commonly understand by "Communism," "World Peace," the "Brotherhood of Mankind," and all other "Golden Age" idealism will meet with the applause of the multitudes.

The whole discussion of Ambassador Harvey's London address centers around the question of idealism. People generally like ideals much better than actualities. And, to a certain extent, ideals are justifiable. No one would care to live in a world that had no sense of the ideal. It is the hope that tomorrow will be better than today that makes today better than it would have been.

And yet, it would seem that only those ideals which can be realized are of any practical use in the reconstruction of society along altruistic lines. Better were it to hitch one's wagon to the mountain top than to some distant star! And better still would it be to keep our ideal moving a little way ahead than to set it so far ahead in the first place that one must necessarily lose all hope of ever attaining unto it.

There is the danger always that while we are gazing at some unattainable idealism we will neglect to do the practical things which bless and benefit humanity in the real world of the

here and now. Should we not first work out a practical solution of our own industrial and social problems on a peace basis before we launch out on world problems? Is not this the scientific method of approach to every question? First the smaller then the larger is the natural method of all evolution.

I would not say, then, that, strictly speaking, This is either a materialistic age or an idealistic age. There are many of both kinds of people in our midst, but I do not believe that either term completely describes the tendencies of the present day.

We are living, however, in a scientific age. An age when the laboratory and the crucible are deciding the questions of the hour. We are no longer satisfied with mere matters of tradition or fits of fancy. We demand facts—cold, hard facts—and we will be satisfied with nothing else.

The application of scientific principles to the problems of manufacturing, engineering, commerce, transportation and communication is constantly increasing. Never was there a war in which science played so predominant a part as in the recent conflict.

People are not satisfied any longer with a diagnosis of disease which attributes plagues and scourges to the will of the Almighty. People want to know the physical cause of disease and the physical cure. Young men and women in the great universities of America are craving for a scientific interpretation of Religion. A thing unthought of a few generations ago.

I am confident that we are entering into the profoundest scientific age that the world has ever seen. An age in which the inventions and the discoveries of the past will seem like child play when compared with the achievements of an age when the general scientific education of the masses of the people has been raised to such an extent that they will be able both to understand and to apply the scientific method to all the various phases of human life—industrial, political, educational, social and religious.

Take but one case for illustration. That of the "social evil," as it is called. There is but one way to solve this question, which many feel is getting to be a scourge upon our American youth. This solution, let me venture to suggest, is not by way of evangelistic campaigns, or public addresses by ministers and moralists. But by way of a scientific presentation of facts under

such conditions and through such channels as will appeal to the intelligence rather than the emotions of the boys and girls whose privilege it should be to know the facts of reproduction. The only institution through which this can be accomplished outside the home is that of the public schools. This is the real solution. Whether we shall adopt this plan or not depends largely upon the character of the leadership in our educational institutions.

But, not only is this pre-eminently a scientific age into which we are entering, but it is also a highly specialized age. Life, in what we are pleased to call the modern age, is too diversified for any one person to know it all. He who thinks he does, doesn't know anything—as Socrates would say! Any one phase of our modern industrial system would furnish material for a lifetime's study. The same is true of the professions. Every man will be required to specialize or be crowded out of a place of leadership in the coming age.

There was a time in the early New England colonies when one man, with a little education, could fill the place of school teacher, preacher and physician to the whole community. But that day has passed forever. And in its place we have a highly specialized citizenship. The man who learns one thing and learns that better than others will be a leader in the new age in a far greater degree than was ever possible in the past.

There was a story in *Munsey's Magazine* a few months ago, entitled "Why Go to New York?" In that story mention was made of a surgeon (whom I happen to know quite intimately) who had specialized along a certain line of surgical operations. He was located in a small western town, and was a recognized leader in his particular line throughout a territory of over a hundred miles square. He maintained a private hospital, well equipped; and was independent financially. It would be extremely foolish, the author said, for such a man as that to go bury himself in a large city, when he had more work than he could possibly take care of, and where no one perhaps could take his place if he should leave.

We need a whole lot more advice like that in this country. Real leaders are in demand everywhere. Not in the cities alone, but in the rural districts and the smaller towns. And people

are not as slow to recognize a real leader as we sometimes think. Not that they will beat a path to our door if we choose to dwell in the wilderness, but they will unusually meet us half way if we can really deliver the goods.

It is a plausible ambition to strive for leadership in whatever line of business a man may be in. And the hopeful part of the whole proposition is that every man or woman of intelligence and energy can be a leader in some particular phase of their work if they are willing to specialize and to follow the truth, no matter where the truth may lead them. I would say that there are five general principles essential to leadership in the modern age:

First, a scientific frame of mind. Be satisfied with nothing short of the actual facts. Knowledge is power. The leader is the man who knows whereof he speaks. Be sure you are right and then go ahead, regardless of criticism.

In the second place, get a hobby! Specialize on some one thing that you are especially interested in. Keep constantly adding to your stock of knowledge on this subject.

Third, acquire a broad general knowledge of men and of events. This is absolutely essential. Many a man has specialized on a subject diligently and never became a leader, because people looked upon him as a "crank."

In the fourth place, be considerate of the opinions of others. It is not necessary for a man to denounce every other person who doesn't happen to seem just like himself. Emerson once said, "If you would have a friend, be one." So, if you would be a leader, be willing to be led by others once in a while.

And, finally, I would say, keep in mind the fact that the success of the principle, if it is a good one, is paramount to the success of the individual. And, then, when the principle succeeds it will carry you with it to a place of leadership in the modern age.

THE OLD-TIME PHYSICIAN

Tho the future may flout them and scout them,
The world had been sadder without them;
Tho they rest in their graves without glory,
Tho they live not in song nor in story,
No prophet—no priest—had a mission
More sacred thru all the dumb years
Than that of the old-time physician,
Whose dust we bedew with our tears.

—Dr. James Newton Matthews.

SYSTEMIC PHARYNGITIS

B. LEMCHEN, M. D., CHICAGO

Physician, Chicago State Hospital

Under this heading I like to classify a disease that I have witnessed at the Chicago State Hospital during the months of January and February. All those affected were employees. None of the inmates were similarly affected. The disease ushers in suddenly with chills. The temperature rises rapidly to 104 F, with severe headaches, backaches, earache and some of the patients complained that their head felt as if it was squeezed in a vise. The disease lasts from two to three days. The pulse is slow in proportion to the temperature; at no time was it ever 100 per minute, averaging 80 per minute. The fever gradually declines after the third day to normal and the pain gradually subsides and convalescence is established in about five days to one week. Urine is negative and there is a leucocytosis. The leucocytes number from 10,000 to 30,000 with a predominate of the polymorpholeucocytes.

The only local findings were a redness of the pharynx including the soft palate. There were no fatalities nor complications in all those affected which numbered about 25. Cultures from several throats were found to contain the ordinary organisms generally found in throat cultures, namely staphylococcus, streptococcus and micrococcus catarrhalis. In one case we found an organism resembling the diphtheria bacillus, but much thicker and shorter. They were all of uniform size and contained either two granules, one at each end, or one granule at the center. Blood cultures were entirely negative. The laboratory work was done by Mr. G. B. Underwood, technician for the Chicago State Hospital laboratories.

The periods of incubation and the sources of infection were not determined as the employees affected were attendants and in close contact with inmates: some of them were on wards that were from 60 to 80 insane patients and none of the patients contracted the disease; it can't be contagious. Transmission through food and water can be excluded as the water and food comes from the same sources for employees and inmates, with the exception that the food is prepared in different kitchens and eaten in different dining rooms. However, the employees affected were eating food that was prepared in

three kitchens and two dining rooms. The only real difference between the employees and the patients, is that the employees are free to go outside and the patients are locked up in the State Hospital, and it is possible that the employees contracted the disease in Chicago where they often go. But why the disease should be infections in Chicago and not in Dunning where the Hospital is located I am unable to state.

While the disease seems to be self limited and patients will get well without any treatment, still, the measure which proved of value in my hands to shorten the disease was—the patient is put to bed. The first day I gave calomel, $\frac{1}{4}$ grain, every 15 minutes till the patient took two grains: three hours after the last dose I gave epsom salts, one ounce, in water. I gave no food but plenty of water, one or more alcohol rubs. I also gave a gargle of a saturated solution of boric acid in water and hydrogen-peroxide. The second day I gave sodium salicylate, 10 grains, and sodium bicarbonate, 10 grains, four times a day and a liquid diet till convalescence was well established.

WHAT WE BELIEVE TO BE FACTS CONCERNING DRUG ADDICTS

CHARLES E. SCELETH, M. D.

CHICAGO

During the past year we treated 260 addicts at the House of Correction. Some of these were cases sent to us by the Government, others by the police for petty crimes to be treated for the drug habit. A few of them were cases that we accepted without commitment.

How many poor addicts who are unable to pay for treatment are there, whom we would classify as worthy? Not a great number. Just before the Harrison Law went into effect the newspapers were full of alarming stories about the hundreds and thousands of addicts who would be running through our streets committing crimes from larceny to murder to obtain their essential drug.

Almost every newspaper had a committee—the city and county each had one, and two or three organizations were all working to meet this great emergency. At a joint meeting they called all the hospital superintendents and requested them to send doctors, nurses and equipment necessary to two or three vacant schools which the Board

of Education had turned over for emergency hospitals. Carter Harrison who was Mayor at this time sent for me and I told him if the city would give us \$5,000 and the County \$5,000 to fix that John Worthy school into a hospital I thought we could take care of them. This plan was accepted—but the county never paid the \$5,000. Understand, that we accepted every addict without police or court sentence who came to us and at no one time did we ever have over 30 cases, usually 10 or 15, and about 10 per cent of this number I would classify as worthy and 75 per cent of this number could convince the person who was not familiar with addicts that they were worthy.

During the war, just before the 45 year draft went into service and the country needed every fighting man it could get, and being told that addicts and chronic alcoholics were not being accepted, I saw General Noble and offered my services, thought that I might be of some service establishing a central place where they could be treated and made available. He approved of it, came out to our hospital, looked it over and asked for plans of the building that he could take back to Washington with him. We had none, but I paid an architect \$25.00 of my own money to do a rush job and I gave him the plans. They sent me to Camp Grant in the Neuro-psychiatric division and when I got to Camp Grant they sent me down to the Ambulance division to help take care of the mules where I met an old army officer who asked me, "Well, why did you come in?" He told me not to take things too seriously; that the best way to get along was to shoot the bull, pass the buck and sign the pay roll.

The trouble is that we have a great many meetings and do a lot of talking, appoint committees and then get no immediate results and we get discouraged. We have no definite plans and we have not the funds or the people who have the time to carry it out so we think, "let George do it." Unless we all are willing to devote considerable time to this problem it will never be solved. A few years ago Dr. J. Miller and myself devoted quite a little time to this question and worked out a plan that we thought would help, but it was the same story; we got nowhere.

At the House of Correction and City Emergency hospital we have treated a number of accidental addicts—normal men who have had friends to extend them a helping hand when they

left the institution. These can and often do make good. Of this class there is a number of poor fellows who never had a real chance; men who leave our institution in perfect health with a firm resolve never to touch the drug again, but who have not a dollar or a place to lay their heads, who are unable to secure immediate employment. In a few hours their stomachs are empty and the only friends to whom they can go are their old associates—the drug addicts and peddlers. These unfortunates need employment and a helping hand to tide them over to payday. Here is a chance for a permanent organization to do something definite.

Our problem is not with the average addict—he serves no useful purpose—he is a loss to himself and a menace to society. He is a focus of infection and through susceptible individuals, spreads the evil. I fail to see the sense of sending an addict of this type with a few days or weeks sentence—10, 20 or 30 times to the House of Correction to be sobered up so he can go out and do it all over again—90 per cent of our addicts are of this type and it is about time our Courts gave them at least a year, and doubled the sentence for each relapse.

We are told that about 85 per cent more opium than the world needs for its medicinal and legitimate use is grown today. The Harrison Law cannot accomplish anything until smuggling and this over-production is stopped. The government should prohibit the exportation of opium and its derivatives and limit the importation to its medicinal needs. Let it stop the dope peddler and organized traffic in habit-forming drugs as counterfeiting is stopped and we will get results.

Spasmodic attempts have been made by newspapers and certain charitable, public and social organizations to provide a place for the treatment of drug addicts. All addicts who have not a pathology should and can be taken completely off the drug in two weeks time. To have them stay off is another problem.

In the passage of the Harrison Law, the addict himself has not been provided for; and the higher type of addict is entitled to consideration in the way of treatment and after-care. We cannot place him in the class with criminals or mental defectives.

Some one has suggested spending \$60,000 or \$70,000 to reopen the City Emergency hospital.

I do not approve of this plan and believe that it will be a waste of time and money.

This is a problem which all of our profession must face and successfully handle if we ever want to get anywhere. Why is it that less than 1 per cent of our physicians treat addicts? One reason is because our medical schools and hospitals teach their students practically nothing regarding the treatment of drug addictions. I have had more than 100 students and internes from our best medical schools during the past 20 years, and they had never seen an alcoholic or drug addict under treatment. The solution of the drug evil does not rest on the administration of any specific cure—and the reason that some men can do this better than the physician who does not treat addicts—is for the same reason that the trained anesthetist in a hospital who has given thousands of anesthetics, can give a better one than the man who has given only a few.

We have treated addicts successfully in our best hotels and the management never knew that they had an addict in the place. The withdrawal of the narcotic can be accomplished in from ten to fourteen days with very little suffering, and it is not a severe ordeal. Getting the patient away from the drug, however, is not all that is involved in a cure. Many patients need expert medical supervision for some time before they recover their nervous balance and physical strength and treatment must be modified to meet the individual problems which the different patients present and while I do not believe that many of them have a pathology, that necessitates an addiction, the way to find out the solution of this problem, is not for the best medical men with their Class A hospitals to stand aside.

We need more than a building and a few doctors and nurses to administer a sobering up treatment. If the people who are here tonight will use their influence to open the closed doors of all of our hospitals to the worthy poor addict who is unable to pay for treatment, you will accomplish something. By that I mean, let every hospital in Chicago for one year set aside two or three beds for the treatment of these patients and accept each patient only after a thorough investigation has shown that he is a worthy case and a resident of at least one year in Chicago. Let each and every patient understand that this is his one chance to get well and stay well—that never again will our hospitals accept him for treatment

—that if he gives any more trouble than any other patient, he will end his treatment right there—that nothing he can do or say will get him another dose of morphine and you will have a patient that will not upset your hospital. After the hospital is through the patient can be turned over to the organizations that you people represent and you can take each individual patient and see that he is put in an environment which will protect him from the physical and mental strain which may cause a relapse. A permanent organization could be formed of people who are willing to do reconstructive and rehabilitation work, and I believe that at the end of a year or two, we will know more about this problem than we do now. If we do not, we can wish it on our Public Health Service.

STERILITY IN THE MALE

PATCH, F. S. (*Canad. M. A. J.*, vol. 14, No. 2, February, 1924), found that out of fifty-one cases in only five could the responsibility for the sterility be attributed to the wife. In one case, responsibility was divided and doubtful. In 45 cases, or 88.2 per cent, the husband was to blame for the unsuccessful issue of the marriage. In 16 cases (31.3 per cent) the cause was developmental, and in 29 (56.9 per cent) it was due to misconduct. The high percentage of cases giving a history of gonorrhoea, 49 per cent, and showing evidences of uncured residual infection, 43.1 per cent, is again pointed out. In practically all of these cases marriage was contracted by the husband in the belief that all traces of infection had been eradicated. The above study warrants us to strongly emphasize the important rôle played by the prostate gland, in harboring gonorrheal or post-gonorrheal infection. No patient who is being treated for gonorrhoea should be discharged as cured, or consent for marriage given, until the certainty of the absence of any infection in the prostate is definitely established. In cases where traces of infection in the husband remain, the possibility of latent infection in the wife has to be kept in mind. Injudicious operations, where this latency of infection exists, may light up infection, which may lead to permanently damaging results. Many men with chronic infection in the prostate have several children without their wives showing traces of infection. This does not lessen the dangers of such infection and the possibility of sterility resulting. Their statistics show, that of the 22 cases with prostatovesiculitis, 11 had their semen examined and only 3 showed healthy spermatozoa. Of the cases where a history of gonorrhoea was obtained, 12 had their semen examined. On 2 of these showed health spermatozoa. It is perhaps unwarranted to draw too definite conclusions from this small number of cases. The study does not take into consideration the ster-

ility produced in the female by gonorrhoea and syphilis. It possesses the virtue, however, of being compiled from individuals in whom the sterility was the cause of special investigation. Two conclusions stand out prominently: The importance of examining thoroughly both husband and wife before responsibility for sterility is definitely fixed, and before carrying out any operative procedure on the woman, and the large percentage of cases in which cured or uncured gonorrheal infection is responsible for male sterility.

Society Proceedings

ADAMS COUNTY

Meeting of June 2, 1924

The meeting was called to order about 9:45 a. m. by the President, Dr. Warren Pearce, at the Quincy Chamber of Commerce, with a total attendance of 56 during the day.

Dr. Pearce welcomed the members of the School of Instruction of the Illinois Tuberculosis Association who were to address us and turned the meeting over to Dr. J. W. Pettit, who was to have charge of the School for the day.

Dr. J. W. Pettit briefly told what the School of Instruction in Tuberculosis endeavored to do. He stated that Dr. J. T. Palmer of Springfield was unable to attend today and his place on the program would be taken by Dr. J. S. Pritchard of Battle Creek, Mich. The program was as follows:

1. Importance of History Taking in Making a Diagnosis of Pulmonary Tuberculosis—J. S. Pritchard, M. D., Battle Creek, Mich. (Illustrated by lantern slides.)

2. Diagnosis of Tuberculosis Reduced to Its Simplest Terms—J. W. Pettit, M. D., Ottawa, Ill. (Illustrated by charts.)

3. Differential Diagnosis of Pulmonary Tuberculosis—J. S. Pritchard, Battle Creek, Mich. (Illustrated by lantern slides.)

At the conclusion of Dr. Pritchard's second address the entire school adjourned to the Adams County Tuberculosis Sanitarium for luncheon at the invitation of Dr. Grant Irwin. Here a splendid meal was served which was thoroughly enjoyed by all. Dr. L. H. A. Nickerson made a motion that a rising vote of thanks be given the Sanitarium officials for the splendid luncheon. This was seconded and unanimously carried. Following the luncheon Dr. Grant Irwin conducted the visitors on a tour of inspection of the Sanitarium. At 2:00 p. m. the School resumed its work at the Chamber of Commerce and after a short address by Dr. J. W. Pettit the following program was carried out:

4. Pathology of Pulmonary Tuberculosis—R. T. Pettit, M. D., Ottawa, Ill. (Illustrated by lantern slides.)

5. X-Ray as an Aid in Making a Diagnosis of Pul-

monary Tuberculosis—J. S. Pritchard, Battle Creek, Mich. (Illustrated by lantern slides.)

6. Treatment of Pulmonary Tuberculosis—R. T. Pettit, M. D., Ottawa, Ill. (Illustrated by blackboard outline.)

After the addresses of the day, Dr. Grant Irwin and Ralph McReynolds led the discussion, which was followed by short talks from Drs. Koch, Kuntz, Williams and Nickerson and finally by Dr. J. W. Pettit. The Secretary made a motion that we extend the members of the School of Instruction a rising vote of thanks for the splendid demonstrations that they had given us during the day. This was seconded and carried. The meeting adjourned about 4:45 p. m., all agreeing that the day had been well spent and thoroughly enjoyed.

HAROLD SWANBERG, M. D.,
Secretary.

COOK COUNTY

CHICAGO MEDICAL SOCIETY

Regular Meeting, April 30, 1924

1. Mental Hygiene. The Opportunity of the Family Physician Sarah M. Hobson
Discussion—H. Douglas Singer, Illinois Society of Mental Hygiene, Anna Blount
2. The Importance of Early Recognition of Syphilis of the Central Nervous System
..... Sigmund Krumholz
General Discussion

Regular Meeting, May 14, 1924

1. Treatment of Acute Chorea with the Rosenow Chorea serum—Preliminary Report.
Jesse R. Gerstley, Catherine M. Howell and L. J. Wilhelmi
Discussion: A. Levinson
2. Preliminary Report of the Complete Surgical Resection of the Thyroid Gland. Otis M. Walter.
Discussion: Prof. A. J. Carlson, University of Chicago; Prof. Andrew C. Ivy, University of Chicago; Allen B. Kanavel

Regular Meeting, May 21, 1924

"The Health of the People"

From the point of view

—Of the Capitalist

William Butterworth, Illinois Manufacturers Association, Pres. Deere & Co.

—Of Organized Labor

Mathew Woll, Vice-Pres., American Federation of Labor

—Of the Twentieth Century Woman

Mrs. B. F. Langworthy, Pres., Woman's City Club

—Of the Lawmaker

Chas. S. Deneen, Ex-Gov. of Illinois

Regular Meeting, May 28, 1924

The Carbohydrate Metabolism During Pregnancy and the Value of Insulin to the Obstetrician.

Hugo Ehrenfest, St. Louis, Mo.

Discussion C. S. Bacon

GREENE COUNTY

The Greene County Medical Society met in regular session at Carrollton on Friday, June 13, 1924. After a sumptuous dinner at Hotel Lindsey, the meeting was called to order by Vice-President Wm. H. Garrison at the Illini Club rooms. The minutes of the last regular meeting were read and approved.

Dr. H. W. Chapman, having passed his fifty years in the practice of medicine, it was fitting that this Society should do him honor for his service to humanity and to this Society. The Secretary had collected and read the following: Dr. H. W. Chapman has been practicing medicine and surgery for fifty years last January. He commenced the practice of medicine at Sedalia, Mo., under his preceptor, Dr. J. B. Jones, in January, 1874. Dr. John T. Hodgen of St. Louis gave him a certificate of proficiency in 1876, and he then located at Barr, Macoupin county, Illinois, remaining there for two years, when he located in White Hall. There were five practitioners who had not graduated in medicine, namely: Old man Culver and his son Buel, L. A. Brewster, E. H. Higbee and A. W. Foreman, and those who were graduates, Doctors A. Bowman, Henry Shirley, Thomas Hyphen Moore and J. F. Potts. Dr. Chapman graduated at the St. Louis Medical College, '76-'77. He was the promoter and prime mover for organized medicine in this and adjoining counties. It was Dr. Chapman, with the assistance of Dr. W. C. Day, then located at Greenfield, in the organization of the Medical and Surgical Society of Western Illinois, which was effected at White Hall, May 4, 1882, in allegiance with the State Society. Dr. C. DuHadway was the first president; Dr. J. F. Potts, vice-president, and Dr. H. W. Chapman, secretary. The last meeting of record to be found was on May 2, 1902, at White Hall. Dr. H. A. Chapin was elected secretary, and no doubt provided a new minute book, and all records, as well as the Greene County Medical Society, were consumed in his office fire of 1913. I personally know that the Medical and Surgical Society was in existence in 195. This society met at Alton, Quincy, Jacksonville, Pittsfield, Jerseyville, Carlinville, Carrollton, Roodhouse, Grafton, Manchester and White Hall. Dr. H. Burns reported the first doctor having any note and activity in this county was Dr. Thaxton. He was a highly educated man, was also a preacher. The first doctor coming to Carrollton at an early date was a Dr. Samuels, a graduate.

Dr. Chapman addressed the Society, giving some of the interesting experiences in the early days of his practice. He entered Dr. J. T. Hodgen's office and attended the clinics during the summer. The doctor had given him a certificate which admitted him to practice at the hospital. They had at this time commenced talking antiseptics, an old bottle of oil with a few drops of carbolic acid for use. He related an experience of a hard drive, a long one too, at about midnight; a woman in hemorrhage; when he placed his bared hand and arms underneath the bed covers a hot stream struck his arm. He at once investigated

by removal of covers. The woman had a severe cough and when she coughed the urine would fly. Dr. Burns brought up the matter of a Baby Conference to be held at Greene County Fair, conducted wholly by the Greene County Medical Society. A motion carried, providing we have the cooperation of all members, that a Baby Conference be held during the county fair, and managed by the Greene County Medical Society. This motion was left open and for disposal by ballot of all members, this to be done through the Secretary. Ten members present.

W. T. KNOX,
Secretary.

Marriages

JAMES M. CHRISTIE, Champaign, Ill., to Miss Lucille Burke of Lincoln, May 28.

WILLIAM A. MICHAEL, Peoria, Ill., to Miss Garnett Groff of Lawrenceville, at Springfield, June 10.

OLAF ELMER SATTER to Miss Bernice N. Long, both of Chicago, May 1.

WILLIAM A. SIM, JR., Quincy, Ill., to Miss Jessie E. Summers of Melrose, May 7.

DON B. STEWART, Zeigler, Ill., to Miss Alice Clarita Alden of Jonesboro, May 15.

CHARLES WESLEY OLSEN, Chicago, to Miss Rhoda Frances Tolman of Emmet, Idaho, May 14.

Personals

Dr. Jasper M. Adams, Canton, has been appointed county physician.

Dr. William E. Constant, for the past few years in charge of the St. Charles City Hospital, has resigned.

Dr. Frank N. Wells, Pittsfield, has been elected physician of Pike County.

Dr. Freeman J. Scott, Rock Falls, has been appointed city health officer, succeeding Dr. Stephen A. Allen.

Dr. William J. Whiteaker, Harrisburg, has been appointed physician of Saline County, succeeding Dr. L. McCormack.

Dr. Henry B. Thomas, Chicago, recently held an orthopedic clinic and gave an address before the Allen County Medical Society, Fort Wayne, Ind.

Dr. Norman Bridge, formerly of Chicago, and donor of the Norman Bridge Laboratory, has subscribed \$150,000 to the Southwest Museum of Art, Los Angeles.

Dr. John A. Hornsby, for several years superintendent of the Michael Reese Hospital, Chicago, has been appointed superintendent of the University of Virginia Hospital, Charlottesville.

Dr. Ralph B. Cobb has been appointed superintendent of the Iroquois Memorial Hospital, Chicago.

A complimentary dinner was given to Drs. John H. Gordon and David R. Wilkins, both of Pocahontas, by members of the Bond County Medical Society, June 27. Dr. Gordon is 81 years of age and Dr. Wilkins 69.

Dr. Olive F. H. Kocher, Elgin, has been elected president of the Elgin Physicians' Club, to succeed Dr. Sally Y. Howell.

Dr. Arthur I. Kendall, professor of bacteriology and dean of Northwestern University Medical School, has been appointed professor of bacteriology and hygiene at Washington University School of Medicine, St. Louis.

Prof. Julius Stieglitz, Ph.D., University of Chicago, delivered the second course of Dohme lectures at Johns Hopkins University Medical Department, Baltimore, on "Chemistry and Recent Progress in Medicine," May 12-14.

Dr. Florence B. Seibert has for the second time been appointed a research fellow of the William T. Porter Fellowship for physiologic research administered under the auspices of the American Physiological Society. She will pursue her research work in the laboratories of Dr. Harry Gideon Wells, at the University of Chicago.

Dr. John F. Deal of Springfield sailed, June 14, with a party of thirty-five physicians for Vienna, to attend clinics during the summer.

Dr. Cassius C. Rogers, Chicago, associate professor of surgery at the University of Illinois, gave an illustrated lecture on "Treatment of Cranial and Intracranial Lesions" before the Decature Medical Society, May 20.

Dr. Julius H. Hess was elected president of the Association of American Teachers of Diseases of Children at the annual meeting, at the Drake Hotel, Chicago, June 10.

News Notes

—At the reunion banquet of the Cook County Hospital Alumni Association the following officers of the Cook County Hospital Intern Alumni Association were elected: Dr. R. W. McNealy, president; Dr. Donald P. Abbott, vice-president, and Dr. Earl A. Zaus, secretary and treasurer.

—Drs. P. F. James, J. B. Jennings, K. M. Richardson, F. C. Walker and W. B. Whipple, members of the Peoria Clinic of Peoria, Ill., have been suspended from membership in the Peoria City Medical Society for the period of one year, for violation of chapter II, section IV, of the Principles of Medical Ethics of the American Medical Association.

—The Lutheran Church recently voted an appropriation of \$1,500,000 for the Augustana Hospital, Cleveland Avenue, Chicago.

—Ground has been broken in La Grange for the erection of the new \$400,000 hospital building that will replace the La Grange Sanatorium, recently destroyed by fire.

—Bids have been taken for the erection of a \$15,000 nurses' home for the Keystone Hospital on Kostner Avenue. Dr. Lewis K. Eastman is president of the board.

—At a meeting of the Chicago Urological Society, May 22, the following officers were elected: President, Dr. Thomas F. Finegan; vice-president, Dr. Vincent J. O'Connor, and secretary-treasurer, Dr. Harry Culver.

—Work will start about July 1 on a new hospital in Chicago Heights, at Fourteenth Street and Chicago Road, which will have a capacity of 185 beds.

—Plans for the erection of a monument in one of Chicago's parks to the memory of Pasteur have been deferred until the autumn. Dr. Frank Billings is head of the executive committee of the campaign.

—At the recent meeting of the Chicago Society of Industrial Physicians Dr. J. Chase Stubbs was elected president; Dr. William C. Meacham, vice-president, and Dr. Horace C. Lyman, secretary-treasurer.

—At the annual meeting of the Chicago Tuberculosis Society, May 15, Dr. Nathaniel A. Graves was elected president for the ensuing

year; Dr. Robert H. Hayes, vice-president, and Dr. Samuel A. Levinson, secretary. The next meeting will be held in October.

—Judge Kavanagh, of the Criminal Court of Cook County, declared in a decision rendered in the case of Margaret Kabana, a chiropractor, charged with practicing medicine without a license, May 26, that the Illinois Medical Practice Act of 1923 is constitutional. The defense, represented by Clarence Darrow and others, argued that the act was unconstitutional. In this, the first decision on the constitutionality of this statute. Judge Kavanagh said among other things: "I have studied the decisions of the Illinois Supreme Court and the Medical Practice Act of 1923 carefully, and clearly understand the points that have been made against this legislation, but I think the act is not open to the objections made. I have no doubt about the constitutionality of this act. It seems to me to be clearly constitutional. I also regard it as wise legislation. Without such legislation, persons without any qualifications whatever would freely engage in the practice of healing diseases and the public would undoubtedly be harmed."

The health committee of the Evanston city council has under consideration the plan of putting iodine in the city water supply to prevent the development of goiter, as practiced in Rochester and some other cities.

The resolution against members conducting free clinics in Elgin, passed by the Kane County Medical Society, is said to have raised a hornet's nest. Members and citizens interested in the clinics await the show down in November with "baited" breath.

The Vermilion County Medical Society has organized a credit bureau with office in Danville, with a 24-hour telephone service.

Deaths

WILLIAM HENRY AMERSON, Chicago; Chicago Homeopathic Medical College, 1890; a Fellow, A. M. A.; University of Illinois College of Medicine, Chicago, 1901; aged 55; died, May 20, of pneumonia.

ELVIN FRANKLIN BAKER, Jacksonville, Ill.; Chicago Medical College, 1867; member of the Illinois State Medical Society; member of the state board of health; aged 82; died May 24.

JOHN A. CAMPBELL, Oak Park, Ill.; Chicago Homeo-

pathic Medical College, 1879; aged 69; died, June 15, of inanition and senile dementia.

WILLIAM C. CLARKE, Cairo, Ill.; Rush Medical College, Chicago, 1895; for eight years city health officer; aged 54, died, June 2.

BRICE HOWARD ELDER, Peoria, Ill.; Indiana Medical College, Indianapolis, 1878; aged 75; died, June 15, following a long illness.

JOHN A. M. GIBBS, Cairo, Ill.; Rush Medical College, Chicago, 1868; member of the Illinois State Medical Society; formerly member of the school board; aged 80; died, May 6, following a long illness.

RAYMOND LAFEVRE HATFIELD, Danville, Ill.; Chicago Homeopathic Medical College, 1903; a Fellow, A. M. A.; aged 45; died, May 29, in a local hospital, of a self-inflicted wound.

EDWARD JOHN KIEFFER, Chicago; Rush Medical College, Chicago, 1902; a Fellow, A. M. A.; aged 44; died March 14.

CHARLES DILWORTH KING, Gillespie, Ill.; St. Louis (Mo.) University School of Medicine, 1905; aged 45; died, in May, at Oakland, Calif.

ARTHUR G. LEWIS, Sadorus, Ill.; Western Reserve University School of Medicine, Cleveland, 1878; aged 76; died, May 16, of cerebral hemorrhage.

ROBERT EDWARD MCCLELLAND, Springfield, Ill.; Rush Medical College, Chicago, 1874; aged 73; died, May 19, of cerebral hemorrhage.

CYNTHIA A. MILLER, Mackinaw, Ill.; Hahnemann Medical College and Hospital, Chicago, 1884; aged 78; died, May 25, at Morton.

JOSEPH REESE, Chicago; Medical College of Ohio, Cincinnati, 1884; member of the Illinois State Medical Society; aged 63; died, May 19, of injuries received in an automobile accident.

ADELAIDE MARY TYRELL, Chicago; University of Illinois College of Medicine, Chicago, 1909; a Fellow, A. M. A.; aged 62; died, June 5, at the Henrotin Hospital, of pneumonia, following an operation.

HOWARD T. WHARFF, Edwardsville, Ill. (licensed, Illinois, 1878); Civil War veteran; aged 77; died May 22.

GEORGE LAMOND WINN, Rockford, Ill.; Chicago Medical College, 1876; aged 73; died, June 9, at Two Rivers, Wis., of senility.

EDWIN FERDINAND WINTERBERGER, Chicago; Chicago College of Medicine and Surgery, 1909; aged 44; died suddenly, May 18, at the Mercy Hospital, Des Moines.

JOHN BREWER HARVEY, Robertsdale, Ala.; Hahnemann Medical College and Hospital, Chicago, 1887; one time medical school inspector Chicago Health Department; superintendent Ottawa Tent Villa Association for treatment of tuberculosis. Formerly in practice in La Grange, Galesburg and Prophetstown, Ill. Since 1910 a resident of Robertsdale, Ala.; aged 67; died suddenly at his home, May 25, from heart failure.

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Some highway to happier make;
If you can't be a muskie, then just be a bass—
But the liveliest bass in the lake!
We can't all be captains, we've got to be crew,
There's something for all of us here;
There's big work to do, and there's lesser to do,
And the task we must do is the near.
If you can't be a highway, then just be a trail,
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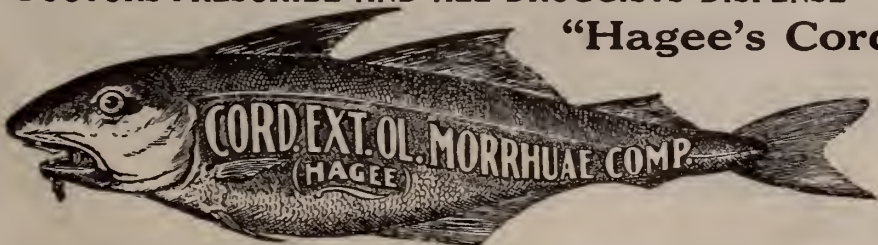
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Society proceedings and news items and changes in the mailing list to Dr. Henry G. Ohls, Managing Editor, 7626 Bosworth Avenue, Chicago.

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Editorial

WHEN IS A FOOL NOT A FOOL, OR HOW TO PICK 'EM?

WHERE SHALL WE FIND THE "MORONS, PREFERRED," TO SIT IN JUDGMENT UPON THEIR BROTHER DEFECTIVES?

The ordinance recommended to the Chicago city council by the city health commissioner relative to latent mental afflictions opens a new epoch in the practice of medicine.

This ordinance, according to the *Chicago Tribune*, August 1, 1924, reads:

"Since every insane person is liable to commit crime, it should be our aim to detect people with mental difficulties. This does not necessarily mean to remove and segregate early cases, but rather to keep them on the job safely. The object of the regulation would be to work among the mentally sick, as we have worked among the tubercular, and to aid them early to overcome bad mental conditions, if that is possible."

Experts claim that in the United States, with its population of 110,000,000 people there are 50,000,000, or almost half this number that might properly be graded as morons, and that there are another 30,000,000, or almost one-third of the entire population whose intelligence will not grade higher than that possessed by the child of twelve to fourteen years of age, or all in all, about seventy per cent of the entire population whose intelligence would come under the rulings of the proposed ordinance.

The average "moron" has the right to vote and is constantly clamoring for "more democracy," which to him means "more power" and not "more wisdom." This in itself is a logical reason for and plausible explanation of the "lawmaking mania" with which the statute books are ridden and the population of the United States taxed and harried into premature despondency if not the grave itself. An interesting question that has been propounded is, "Just who is going to fix

upon the mental standards necessary to place a man and his mind in the reportable or not reportable class?" Nearly all native born citizens are aware of the Quaker of Colonial days and his statement, "Every one's crazy but me and thee, Reuben, and even thee's a little queer."

Mental diseases are apparently on the increase, making it harder for experts to determine the fine line of demarcation between normality and abnormality. The Health Commissioner should read the United States Army's reports of the Surgeon General of physical and mental examination of volunteers and draftees during the World War.

"No nation was ever overthrown by its imbeciles. Nature abhors a vacuum, and for that reason weeds out the heads of fools. The significant thing is that the fools are increasing, and those responsible for their welfare are decreasing," says Wiggans. Unfortunately, nature does not always begin at the top in her eliminating process and thus causes the masses to suffer more than is their due.

Let it be repeated that this undoubtedly is the chief cause of the lawmaking mania sweeping the country, and leading most governmental, state, and municipal organizations to seek to become more and more bureaucratic. Unless a stop is put soon to this obsession soon the report of a sneeze will be required by ordinance.

Health departments all over the country are stultified with officiousness and bureaucratic dogmas. This ordinance relative to mental diseases will add another link in the long chain already surrounding Chicago's health department. The commissioner thereof seems to believe that the mere passage of a law makes that law self-enforcing. He fails to take into consideration the fact that to be enforced a law must have behind it the full weight and approval of public opinion. No body of people will ever give approval to the enforcement of a law of the nature of this just proposed by the commissioner, especially since such a law would have every chance in the world of being interpreted and enforced by individuals possessing mentality lower than that of those accused of falling within the scope of the law. Those interpreters and enforcers of this law, or ordinance, would possibly be under the care of mental hygienists themselves were justice to be meted out fairly. Further under this mental disease reporting restriction, blackmail would

flourish, and avenues would be opened whereby many might avenge imaginary wrongs to the great embarrassment of more worthy people.

The enterprise proposed by this law would be so impossibly gigantic and so gigantically impossible, that one wonders how there would be left enough free morons to pay for the financing thereof. Taxes have to be paid from somewhere, even to keep the health department going.

In justice to those responsible for the proposal of the ordinance, and in all kindness, it is perhaps far better to consider the whole matter as merely a temporary bit of hysteria resulting from careful study of a notorious and unparalleled murder case, vexing the courts at present. And in passing it may be mentioned that even the day of the arrest of the defendants in that litigation, not one doctor in Chicago could have been found who would have pronounced them crazy without running the risk of having his own mentality questioned and himself sued for slander.

After all, it seems to be rather a pons asinorum . . . veritably a bridge of asses.

THE A. M. A. MEETING

The fifty-fifth annual session of the American Medical Association was held in Chicago from June 9 to June 13. The total registration was 7,819, the largest in the history of the organization, the previous largest registration was likewise in Chicago in 1908, when the registration was 6,446. The large registration was due in part to the magnificent work of the local committee of arrangements and, secondly, by the great interest aroused by numerous special features included in the 1924 session.

The meeting just held in Chicago has been especially inspiring because administration, scientific and commercial exhibits and section meetings have been gathered under one gigantic roof, in a building which could furnish shelter to a small army.

Dr. William D. Haggard of Nashville, Tenn., was elected president for 1925 to succeed Dr. William Allen Pusey of Chicago.

Dr. E. B. McDaniels of Portland, Oregon, was elected vice-president. Dr. James H. Walsh of Chicago, Dr. E. B. Heckel of Pennsylvania are the new trustees, the other officers elected were to succeed themselves.

The House of Delegates. In the House of

Delegates Dr. T. C. Chalmers of New York offered a resolution to instruct the board of trustees of the Association to use its influence to have repealed those sections of the Volstead Act which interfere with the proper relations between physician and his patient in prescribing alcohol medicinally. This resolution passed the House without a dissenting vote.

The action of the House of Delegates and the general approval given to it by the public as expressed through the press are indications of a healthful reaction against enactments and regulations which have recognized, in their formulation, popular prejudice rather than scientific fact.

Most of the Chicago newspapers have already expressed themselves editorially on the action of the House of Delegates relative to this resolution and the following statement represents their general attitude:

Physicians who object to the provisions of the Volstead act regulating the use of alcohol in the practice of medicine are unanswerable. If the law allows a physician to prescribe spirits for a patient, as it does, the dosage is entirely a matter for the physician's judgment and not for congress to prescribe.

The law adopts a principle which makes congress the doctor. The arbitrary dictum is that a patient may be given a pint of whisky every ten days as medicine, but no more, regardless of the opinion of the doctor in the case.

Congress might have declared that whisky had no medicinal value. Some physicians hold that it has no peculiar medical value. Others contend that it has. In practice they can follow their own opinions. They will all agree that if it has value the doctor who prescribes it at his own discretion should have discretion as to the amount.

Congress went on the assumption that the medical profession would misuse the prescription blanks. The drys decided that the person who violated the intent of the law and got whisky as a beverage because it was legalized as a medicine should have just as little satisfaction out of it as possible. Of course, they did not reach the man they intended to reach. The unscrupulous physician has no difficulty with this limitation. He has many expedients by which it can be avoided. The scrupulous physician finds that his practice is controlled by a law which affronts both his intelligence and his honesty.

It is an absurd theory that congress may substitute itself for the physician in the treatment of disease, and it is no wonder that many physicians resent such an ignorant and dictatorial interference with medical practice.—*Chicago Tribune*.

The eighteenth amendment is directed solely against the use of liquor as a beverage, and whether the medical clauses of the Volstead law are valid is a question not yet dealt with by the federal Supreme Court.

Some physicians, it is true, yield to the temptation to prescribe liquor where it is unnecessary, and not a few have permitted themselves to become bootleggers in disguise. But Volsteadism, with its sequels and supplements, has not prevented unscrupulous abuses and never will entirely prevent them. The medical profession should purge itself of immoral and dishonorable elements, and its efforts in that direction would be stimulated by a congressional policy of confidence toward it. The honorable physician is hampered by Volsteadism, while the charlatan is not even inconvenienced.

The modification of the prohibition statutes demanded by the medical profession would not obstruct proper experience. The felt necessities of the time, the prevalent moral and political theories; institutions of public policy, even the prejudices which judges share with their fellow men, have had a good deal more to do than the syllogism in determining the rule by which men should be governed."

It has long been recognized that legislation is just as likely to follow public emotion as it is to be guided by scientific knowledge. This fact was excellently expressed by Chief Justice Oliver Wendell Holmes in "The Common Law," when he said:

"The life of the law has not been logic; it has been experience. The felt necessities of the time, the prevalent moral and political theories; institutions of public policy, even the prejudices which judges share with their fellow men, have had a good deal more to do than the syllogism in determining the rule by which men should be governed."

We have always maintained that the medicinal use of alcohol and its use as a beverage were separate and distinct questions and that the government of the United States has no right to question the good faith of the medical profession and that the doctor who treats the patient is the sole judge, who notes the physical condition, the actions and reactions of the sick individual is the sole judge of what should be done from hour to hour under changing conditions, and we are pleased to note that the House of Delegates had the good sense to go on record as demanding that the doctors be given free hand in the use of alcohol in medical work.

Dr. Ray Lyman Wilbur, president of the association and of Leland Stanford University, denounced bureaucracy in the administration of medicine. It is folly, he said, to permit bureaucracy to step in between physician and his patient, as in the instance of the Volstead Act.

DR. PUSEY'S ADDRESS

Dr. William Allen Pusey, president-elect of the association, indicated the danger signals and perils awaiting modern medicine.

Dr. Pusey said in part: "The medical fraternity is confronted with a serious situation,—the social problem in medicine. At the present time the medical profession is assailed on all sides by all sorts of theories and theorists which include

all manner of cults and all manner of social organizations and agencies which are dipping into strictly medical problems."

"That if medicine is to escape serious and damaging mistakes it must consider these problems with deliberation, ambition and wisdom. This government of ours," said Dr. Pusey, "was organized in a spirit of individualism; given equal opportunity, men were expected to work out their own lives through industry, intelligence and character. Competition was allowed to exercise its wholesome influence in stimulating men in their worldly efforts. It was the evidence, unconsciously, of the law of the survival of the fittest, long before Darwin had formulated that concrete conception and given it a name. Unconsciously the social trend has been continuously away from this spirit, and it must be so as the world progresses. But we are approaching wider, deeper, and more dangerous doctrines unless the medical profession proves its fitness to cope with the situation. And unless the trend of matters which are strictly medical are held in leash by medical men, we may become a socialistically inclined profession, and suffer from the paternalistic regime which hangs over our head constantly."

All of the tittle-tattle, all of the uplift and much of the care of the unfit, the social wanderer, is undermining the foundation of medicine. Too much of the responsibility concerning the sick is left to lay people, who often acquire a lay theory which they attempt to put into practice. Of course, all this means that eventually the people must be better educated, but it means much more, that the people should inherit a better constitution, both mental and physical. Then education may produce results. But if the struggling and straggling parade goes on without a leader, without a common-sense doctrine, it is going to break itself against the inevitable stone wall which has been erected for centuries. The present-day eugenicist is seeking to eliminate hereditary disease, but it is going to take centuries to make the people understand. Dr. Pusey said further: "Medicine for the masses will cease to be an independent vocation and we will have medical socialism."

"That the growing trend towards specialization in medicine has begun to eliminate the old family doctor and that in country districts especially

the time may soon come when a large majority of the community will be without doctors.

"That a possible famine of doctors may actually deprive large sections of the commonwealth of a chance for medical aid. That the only remedy was a complete turnabout in modern methods in medical education.

"Almost none of the remedies that we offer seem to contemplate the maintenance in the rural districts of the old status of physician and patient," he said. "The remedies offered are socialized substitutes—the establishment of medical centers, of small hospitals and laboratories, the guaranty of a part of the physician's income by voluntary subscription of individuals or by taxation of towns and districts.

"These are all experiments to remedy a condition where natural supply has failed to meet demand, and they are all steps in the direction of medical socialism, or, if you please, state medicine. Some men offer the logical opinion that state medicine is the only solution of medical service for the masses.

"Let the country acquire the habit of paying, as a community, the physician a salary for part of his services to that community, and it will be but one more step for it to hire him for all of his service and have him as an employee to take care of the community's sick.

"Is this the only sort of remedy that we can offer? Are we reduced to the necessity of accepting as inevitable that the old order is passing; that we can no longer produce physicians to go out and do the old-time, every-day work of practicing medicine; that we cannot change a course of ours, whose direct trend is toward the day when service for the individual of ordinary means can only be furnished through some sort of industrial or socialized expedients; that in the rural communities there is no way of furnishing physicians of the new generation except by changing their economic and social conditions? Is there not some other way? Dr. Pusey spoke very strongly of two conspicuous problems which he felt should merit the interest and thought of the medical profession—medical education and nursing. He drew attention to the fact that the young man today who wishes to take up the science of medicine as a profession was handicapped by the preliminary requirements, the length of his medical course, and hospital service, and did not become available for public service

until he was pretty nearly twenty-eight years of age. He felt that by careful consideration of the needs of the physician, the preliminary education might be cut by at least two years, thereby working a greater economic benefit to the physician and enabling him to better serve the community."

The second problem, which he thought required solution, was the education of nurses. We know now that few people can afford to be ill owing to the high cost of hospitals, physician and nurse.

Dr. Pusey felt that the practical nurse would come back to her own and that we must find some way of making it financially possible for the person in moderate circumstances to be cared for.

DON'T STUDY MEDICINE GERMAN DOCTORS URGE

According to the associated press correspondence from Leipsic, May 27th, the German Physicians Association says Don't Study Medicine is the advice given the prospective students for the reason that for years to come the medical profession will be overcrowded.

One reason assigned is the fact that old doctors find themselves unable to retire from active practice, since their savings were wiped out by the depreciation of the mark, other reasons assigned of the loss of the colonies, the disarmament of Germany, and the poverty of the masses, who will not call a doctor except in the most necessary cases.

The most important reason of all is the fact that under the compulsory health insurance of Germany doctors are unable to make sufficient money to pay expenses. Recent figures show that at present members of the profession are unable to make what represents \$5.00 per month in American money.

SURGICAL ATTENDANCE AS FURNISHED BY THE SOVIET REPUBLIC

Richard Henry Little, star reporter for the *Chicago Tribune* in Russia during the world's war, in the *Chicago Tribune*, January 23, 1924, to whom this service was dispensed says:

Lenin is dead! When I read that yesterday I could see again that grimy little Russian town on that gray winter afternoon. I can see again that single room filled with wounded White soldiers. We all lay there on the floor under a thick white blanket of snow, for our

extemporized hospital had no roof—nor windows—nor doors. I could turn my head just a little and see across the street to where stood a shabby church and a low brick wall.

A *drunken* doctor, waving a carpenter's saw with which he had been amputating legs and arms, called on us to look at that wall alongside the church because he said that soon Lenin's soldiers would take the town and stand us, or rather lean us, against the wall and shoot us to death. Then came the rumor that Lenin was dead. Lenin, the brains, the soul, the inspiration, the genius of the Soviet Republic, was dead. How we half-frozen, wounded men cheered! Lenin dead, then the Soviet Republic was dead and no Red soldiers would come raging into the town to drag us across the street to the church and prop us up against the brick wall.

Lenin wasn't dead then, but he is now. Well, now, I don't care any more than the rest of the world does. Except that the words "Lenin is dead" make me see again that grimy little Russian town, a gray winter afternoon, a roofless hospital, and the wounded men under their blanket of snow. Yes, and the village church across the street, and the low brick wall.

WHO WAS DR. WILLIAM BRADSBY? IT IS PROBABLE THAT NO PHYSICIAN IN ILLINOIS EVER HEARD HIS NAME PRONOUNCED NOR EVER SAW IT IN PRINT YET HE MADE HISTORY IN ILLINOIS

In the July issue the committee on Medical History showed how Dr. Jean B. Laffont in 1778 at Post Vincennes working under a commission from Fort Clark deftly turned one of the pivotal points of the revolutionary war from British to American allegiance. In this issue the committee shows that another medical man, Dr. William Bradsby, was a leader in statehood movements.

As a result of the conquests of Dr. Laffont as shown in the July issue the territory of the northwest was in time formed and under the famous ordinances of 1787 the inhabitants of Illinois were made subject to the government of that territory the seat of which was located at St. Marys, Ohio, although that region was not settled for one hundred years after Illinois.

In turn the territory of Indiana was created and Illinois was made the tail of the Indiana

kite. In 1809 the territory of Illinois was finally created and governed as a territory. Patriotic men who had long dwelt in Illinois, the oldest part of all the northwest territory, were impatient for self government and many of the most worthy were eager to suppress the slavery evil that existed in the face of the inhibitions of the ordinance of 1787. Amongst the most effective of such men was Dr. William Bradsby. In the territorial legislature he was the Father of the bill introduced to repeal the indenture laws that had been enacted for the purpose of evading the provisions forbidding slavery and he was a signer of the famous address against slavery that was the forerunner of all the anti-slavery agitation. Hark back now to Abraham Lincoln, and back to Owen Lovejoy and back farther to Edward Coles, all honored as the great abolitionists but fifty years before Lincoln and Lovejoy and twenty-five years before Coles was William Bradsby, M.D. the uncompromising foe of slavery. His record of patriotism and statesmanship does not conclude with his splendid anti-slavery work. It is for Illinois, self-governed, independent and a sovereign state of the union. Accordingly, without heeding longer the cries for delay or the stubborn opposition he introduced and pressed to adoption the resolutions which made Illinois a state.

Now, who has heard of Dr. Bradsby? It is quite probable that no reader of this Journal ever heard his name pronounced nor ever saw it in print. Bradsby was of Irish extraction. His sterling old father of the same name was settled in Illinois before the revolutionary war and the young Bradsby started his career as a school teacher. No man of early Illinois stood higher in the esteem of his contemporaries and but few have to their credit as many meritorious achievements. This is only another of hundreds of other interesting steps in the growth of Illinois country portraying doctors as the "*trail-blazer*"—*telling of their work, their want, their heroism and courage down to the present day.* Everything from the earliest period of medical practice in Illinois will be set down in the "History of Medical Practice in Illinois" now being prepared by the committee on Medical History under the sponsorship of the Illinois State Medical Society.

Sold on subscription. Order your copy now. Surely you will want to have in your medical

library this written work of the record of your forebearers. Fill in the following order blank and mail cheque to the committee at once.

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Progressive physicians, medical schools, hospitals, libraries, reference and statistical bureaus, and institutions of learning generally will want a copy of this volume as a concise, dependable authority for daily use. Unique, comprehensive, and a long wanted unit of historical value, this chronicle of Illinois progress is a record of work done for humanity by the profession. These annals are a bequest of value for posterity; an heirloom for the children, relatives and friends of former and present members of the Illinois State Medical Society.

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LOSE OUT ON THIS!

UNITED STATES WARS AND ILLINOIS DOCTORS

PART PLAYED IN COUNTRY'S CONFLICTS BY
MEDICAL MEN OF THE ILLINOIS COUNTRY

The soldier-doctor will come into his own at last, according to plans for the compilation of the "History of Medical Practice in Illinois."

Haphazard and scattered records are the only available annals of military medical service prior to the World War. A large part of these is prac-

tically inaccessible for general and immediate reference, and an even larger part is sadly incomplete. Even those chronicles procurable from the libraries of the Adjutant-General of Illinois, the Surgeon-General of the U. S. A., the Adjutant-General of the War Department, or the Congressional Library show many lapses. Much of this missing material is in the histories of various counties, in court records, family albums and traditions, Bibles, in community statistics and in the post-war organizations of the veterans themselves.

It is sad but true that the memory of these men is neglected where general records are concerned, through a lack of accuracy. For instance, in reports of the Spanish-American war, published elsewhere in this issue, there appears only thirty-five names of Illinois men in medical service, with no mention at all of the contract surgeons serving then, and in the Army of the Philippines.

Medical men or women who had war service personally, or relatives of such physicians, will confer the tribute due to those sacrifices by sending at once a complete record of military service during any of the conflicts waged by the United States from the time of the War of the Revolution to the World War. This includes those who were acting assistant, or contract surgeons, or in the line, or with other staff organizations, and needs to be completed in every detail. Kindly scrutinize the lists presented in this magazine.

Note the absentees; search your personal and public records, those at home and in the libraries and public files, and send the information gleaned thereby direct to me at 25 East Washington Street, Chicago, Ill., obliging thereby

P. J. H. FARRELL, M. D.

COUNTY RECORDS WILL YIELD WAR SERVICE DATA

By way of emphatic illustration of the fashion in which plain county histories betray the inaccuracy of official war department records, please look at the list of names furnished by the Surgeon-General's office of the list of Illinois medical men serving during the Indian wars, from 1810-13. But two names are given—those of George Fisher and William Reynolds. A chance glance at the History of Sangamon County revealed to the editor, peculiarly enough at first glance, the name of Dr. Gershom Jayne, who had

served as surgeon in the War of 1812. Dr. Jayne was the first physician to locate in all that vast district of Illinois lying north of Alton and Edwardsville and west of Chicago.

LIST OF SURGEONS IN ILLINOIS TERRITORY WHO SERVED DURING THE INDIAN WARS—1810-13

Fisher, George.....
Reynolds, William.....

LIST OF SURGEONS IN ILLINOIS WHO SERVED DURING BLACK HAWK WAR—1832

Branson, Hiram K.....Springfield, Ill.
Constant, William.....Greene County
Delany, H.....Rushville, Ill.
Dunlap, Adam.....Springfield, Ill.
Erby, Jacob M.....Shelby County
Gordon, George.....Shelby County
Headen, William.....Belleville
Higbee, Charles.....Morgan County
Leighton, Jonathan.....Belleville
Mitchell, William.....Morgan County
Pepper, Moseel D.....
Philo, Addison.....
Romeis, Richard.....Belleville
Rutledge, John B.....Sangamon County
Warnsing, John.....Sangamon County

LIST OF SURGEONS IN ILLINOIS WHO SERVED DURING MEXICAN WAR—1846-48

Ash, Nathan H.....
Purch, J.....
Lester, Thomas B.....Alton, Ill.
Mahan, J.....
O'Niel, J.....
Miller, John L.....
Payton, C.....
Price, Edward B.....
Quinn, Wm. M. P.....
Robinson, James D.....
Thompson, Francis B.....
Turney, Daniel.....
White, James H.....Alton, Ill.
Zalviskie, Chris B.....Alton, Ill.

LIST OF SURGEONS IN ILLINOIS WHO SERVED DURING SPANISH-AMERICAN WAR—1898-99

Adams, Charles.....Chicago, Ill.
Ames, Edwin W.....Chicago, Ill.
Anthony, Frank.....Sterling, Ill.
Bath, Thomas W.....Decatur, Ill.
Bevans, James L.....Chicago, Ill.
Byrne, John G.....Monmouth, Ill.
Cole, Lorenzo S.....Chicago, Ill.
Curtis, James W.....Chicago, Ill.
Cuthbertson, Charles M.....Carbondale, Ill.
Farrell, P. J. H.....Chicago, Ill.
Gregory, Wm. G.....Cave-in-Rock, Ill.
Hall, Andy.....Mt. Vernon, Ill.
Hilgard, George E.....Belleville, Ill.
Keeley, Milton R.....Dwight, Ill.
Lenke, August F.....Chicago, Ill.
Lydston, G. Frank.....Chicago, Ill.
Mahoney, George W.....Chicago, Ill.
Marquis, George P.....Chicago, Ill.
McCord, Thos. Chester.....Paris, Ill.
Miller, Edward S.....Chicago, Ill.
Nagel, John S.....Chicago, Ill.
Porter, Ralph S.....Chicago, Ill.

Robbious, Charles A.....	Dixon, Ill.	Ormsby, Orange B.....	Greenville
Roberts, Thomas E.....	Chicago, Ill.	Iipolite, William W.....	Ives Grove, Wis.
Robeson, T. Jay.....	Chicago, Ill.	Henderson, Eliel F.....	Randolph County
Rowan, Chas. S.....	Chicago, Ill.	Burr, Chauncey S.....	.....
Rowe, Jesse.....	Abingdon, Ill.	Watson, Francis W.....	Marengo
Senn, Nicholas.....	.....	Blake, Samuel C.....	Chicago
Shaw, John Bliss.....	Joliet, Ill.	Bogue, Roswell G.....	Chicago
Starrett, Carlton E.....	Elgin, Ill.	Bailhache, Preston H.....	Springfield
St. Clair, Frank P.....	Chicago, Ill.	Little, Charles F.....	Kewanee
Sullivan, Thomas J.....	Chicago, Ill.	Southwick, Gilbert W.....	Arcadia
Walls, C. Bruce.....	Chicago, Ill.	Goodbrake, Christopher.....	Clinton
Washburn, Waiter R.....	McLeansboro, Ill.	Richards, Rolla T.....	Clinton
Wesley, Allen A.....	Chicago, Ill.	Bailey, Frederick K.....	Joliet
Willard, Wm. G.....	Chicago, Ill.	Richards, Rolla T.....	Clinton
Whiteside, Charles E.....	Moline, Ill.	Seelcy, Eden M.....	Mason County

ILLINOIS DOCTORS IN THE CIVIL WAR—

1861-65

Sim, Thomas.....	Springfield	Reat, James J.....	.....
Haven, S. R.....	Springfield	Muns, Carl.....	Mt. Carmel
Metcalf, Richard L.....	Springfield	Tenbrook, Samuel B.....	Paris
Davis, Charles.....	Springfield	Reat, James L.....	.....
Trowbridge, Silas T.....	Springfield	Burns, James.....	.....
Phipps, John M.....	Springfield	Link, John E.....	Paris
Bell, Sanford.....	Springfield	Coatsworth, George.....	Chicago
Hamilton, Samuel M.....	Springfield	Woodward, Benjamin.....	Galesburg
Dennison, Charles N.....	Decatur	Fitzer, John.....	Belleville
Buck, Wilber F.....	Marengo	Collins, Russell J.....	Pocahontas
Spalding, Clarence N.....	Rockford	Brown, Isaac W.....	Sparta
Everett, Samuel W.....	Cairo	Wyner, William D.....	Chicago
Stahl, Daniel.....	Quincy	Gregg, Patrick.....	Rock Island
Gulich, Emil.....	Alton	Lee, Silas J.....	Chicago
Craig, William D.....	Aledo	Taylor, John S.....	Fayette, Mo.
Allen, William A.....	.....	Stinson, Charles W.....	Canada
Payne, Henry R.....	Marshall	Jared, Lorenzo D.....	Morrison
Ritchie, Robert L.....	Warsaw	Wagner, William.....	Chicago
Reeder, Isaac H.....	Wenona	Fuller, Sidney L.....	Chicago
Nichols, William P.....	Walnut Hill	Stock, Carl B.....	Chicago
Craig, John W.....	Cairo	Thomas, Jerome B.....	Kewanee
Ifeise, A. W.....	Joliet	Wild, Theodore.....	Chicago
Long, Owen M.....	Jacksonville	Winans, Henry C.....	Kenia
Hunt, Oliver G.....	Sandwich	Blount, Joseph.....	Rockford
Hopkins, Myron.....	Aurora	Clark, Dexter S.....	Rockford
Dewey, George H.....	Collinsville	Brown, Robert H.....	Mahomet
Sulcer, Abraham A.....	Collinsville	Clark, Dexter S.....	Rockford
Briggs, William D.....	La Salle	Brown, Myron S.....	Urbana
Wardner, Horace.....	Chicago	Bowman, Edward H.....	Edington
Burton, Elijah P.....	Chesterfield	Barrell, Henry C.....	Springfield
Farris, James H.....	.....	Dickerhoff, A. J.....	.....
Swan, Samuel W.....	Leland	Bringhurst, James.....	Jerseyville
Newell, William M.....	Paris	West, William F.....	Elkhart
Cady, William F.....	Rock Island	Kelly, A. W.....	.....
Plummer, Samuel C.....	Rock Island	Kemper, John.....	Industry
Thompson, Charles A.....	Urbana	West, William F.....	Elkhart
Law, David H.....	Dixon	Gordon, William A.....	Chester
Hunt, J. Spafford.....	Dixon	Moore, David N.....	.....
Salter, Henry F.....	Moline	Turner, John J.....	.....
Allen, Geo. T.....	Springfield	Feland, William.....	.....
Stephenson, Benj. F.....	Springfield	Marshall, Joseph D.....	Dixon
Kersting, Fred W.....	Springfield	Merrifield, Emery A.....	Vienna
Chafer, N. F.....	Shelbyville	Whitnell, David T.....	Collinsville
Drake, Moses C.....	Elkhart	Suhfras, Gustave.....	Collinsville
Boyd, Henry W.....	Alton	Van Dyke, Ebenezer.....	.....
Davison, Samuel A.....	Bunker Hill	Dunn, David M.....	Bethalto
Kelly, John.....	.....	Edgar, William S.....	Jacksonville
McKim, William J.....	Freeport	King, William H. II.....	Jacksonville
Puck, Harmon.....	Marengo	Cristy, George B.....	Franklin Grove
Van Valzh, John W.....	Freeport	Gilmer, John J.....	Carrollton
Lake, Leonard L.....	.....	Rex, George P.....	Perry
Bond, John.....	.....	Abbott, Nathan W.....	Salem
Wright, O. P. B.....	Bradford	May, Edwin.....	.....
Chaper, Noah F.....	Shelbyville	Wallace, Hugh L.....	.....
Kellogg, Lucius D.....	Canton	Antis, Henry T.....	.....
Tompkins, Charles B.....	Lewiston	Rex, Oliver P.....	Griggsville
Penniman, Henry H.....	Belvidere	McNeill, Francis A.....	.....
Buck, Wilbur P.....	Rockford	Herrick, Orson Q.....	Kansas
Davis, Henry W.....	Paris	Hosetter, John L.....	Mt. Carroll
		Barker, Franklin.....	Oregon
		Hewitt, George W.....	Franklin Grove
		Chenoweth, William J.....	Decatur

Hawley, Sidney B.	St. Charles	Reatty, Andrew D.	Red Bud
Tidball, David C.	Vandalia	Black, James A.	Salem
Wylie, Johnathan D.	Oakland	Farrow, William W.	
Watson, Louis.	Quincy	Kendall, Henry W.	Payson
Githens, Wm. H.		Williams, James A.	Lincoln
Ritchie, Adelbert L.		Bane, Garner H.	Liberty
Trust, Jacob.	Dallas	Pickett, Albert G.	Paris
Young, Delos W.	Aurora	Hunt, William C.	Chicago
Lytle, Francis W.	Troy	Weeks, Jerome E.	LaSalle
Hatch, Jethro A.	Aurora	Magee, Thomas L.	Prairie City
Hawley, Sidney B.	Aurora	Scott, John H.	Metropolis
Pierce, William P.	Lishon	Elliott, William H.	
Charles, Edward W.	Waterloo	Angel, Leland H.	Aurora
Humeston, Luther F.	Chicago	Winchester, Edgar.	Elgin
Morgan, Albert W.	Galveston	Rhor, George W.	Chicago
Clark, Elijah A.	Wheaton	Guild, Phineas K.	Plainfield
Murphy, John.		Humphrey, Wesley.	
Mesler, Henry T.		Arndt, Peter F.	
Marlin, Keysy S.		Welch, William W.	Amboy
Teed, John L.	Mendota	Warmoth, George M.	
Barrell, Henry C.	Springfield	Harris, James O.	Ottawa
Stewart, Dudley W.	Chicago	Smith, George O.	Shawneetown
Tichenor, Edward J.	Newton	Zeising, Henry.	Peru
DeBall, James M.	Lima	Lee, Ethan A.	Mattoon
Blake, Samuel C.	Chicago	Wilkins, Thomas.	Vandalia
Clark, Charles M.		Lycan, Leander.	Paris
Crozier, James.	Waveland, Ind.	Johnson, Charles S.	Paris
Woodward, William.	Belvidere	Roler, E. O. F.	Chicago
Thompson, Samuel W.	Salem	Tompkins, Charles B.	Lewistown
Elliot, William M.		Winne, Charles.	Somonauk
Graham, William.	Mt. Carmel	Smith, John T.	Cedar Rapids, Iowa
Turner, Will E.		Newell, Orlando W.	Marshall
Edwards, Joseph W.	Mendota	Whitmire, James S.	Metamore
Harvey, William P.		Thompson, Francis B.	
Gray, William M.	Decatur	Pearce, Joseph R.	Danvers
Carle, Charles.	Tamaroa	Weeks, Jerome F.	La Salle
Short, George W.		Poindexter, Randall.	Shawneetown
Warmoth, George M.		Marsh, Alfred F.	Harrisburg
Coleman, John W.	Monticello	Morgan, Uriah.	
Powell, Edwin.	Chicago	Morris, George.	
Fitch, Thomas D.		Zearing, James.	Dover
Ilanson, Zenas P.	Buckstone, Me.	Blood, Henry S.	Chicago
Roler, E. O. F.	Chicago	Crossley, George W.	Princeton
Mills, Andrew J.		Bishop, Isaac N.	Santa Anna
Goddard, James.	Sparta	Crawford, Henry M.	St. Charles
Ravenot, Octave P.		Merrifield, Emery A.	Elgin
Starkloff, Hugo M.	Galesburg	Heidemann, George F.	Chicago
Funk, Julius.	Cincinnati	Haslett, J. D. S.	
Hartmann, Alexis K.	O'Fallon	Keelly, A. W.	
Starkloff, Hugo M.	Galesburg	Bunce, Charles.	Galesburg
Weitze, Ferdinand.		Maynard, H. J.	
Merrifield, Emery A.	Elgin	Kerr, Charles.	Pawnee
Radmore, Charles C.	Wenona	Gaston, Joseph E.	Knoxville
Carter, William D.	Nashville	Miller, Joseph T.	Glendale
Forshee, Thomas W.	Tonica	Gray, William M.	Peoria
Carter, William D.	Nashville	Dodds, Ford S.	Anna
Forshe, Thomas W.	Tonica	Charles, Edward W.	Waterloo
Kittoe, Edward D.	Galena	Sheriff, John A.	
Ormsby, Orange B.	Greenville	Norris, Andres S.	Santa Anna
Gaskill, James R. M.		Clemmons, Leonidas.	Chicago
DePuy, Elias C.	Freeport	Anthony, Julius P.	Sterling
Bradshaw, Benjamin H.		Knapp, George H.	Jerseyville
Carle, Charles.	Tamaroa	McKinney, John W.	Camargo
DeWitt, Charles M.	Freeport	Cameron, Charles W.	Richview
Wehster, John.	Chicago	Wundt, Charles L.	
Lucas, George L.	Peoria	Bridges, Vernon R.	Mattoon
Babb, Timothy.	Peoria	Hatch, Seth C.	Griggsville
Andrews, Luther M.		Grey, William.	Decatur
Hill, William.	Salem	McKinney, John.	Camargo
Goslin, Asher.	Carmi	Lodge, Alexander E.	Marshall
Shearer, Melville W.	Washington, Ia.	Hall, Lyman.	La Salle
Deshon, Henry H.	Jonesboro	Stewart, James T.	Peoria
Young, Stephen J.	Terre Haute, Ind.	Mix, Henry A.	Oregon
Corwin, Eden M.		Holten, Nohle.	Buda
Medcalf, William H.	Olney	Pulmmer, William A.	Smithville
Mercer, Stephen G.	Salem	Roesch, Otto E.	Alton

Park, George H.	Chicago	Southwick, Gilbert W.	Arcadia
Brown, Ira	Caledonia Station	Patterson, James X.	Mason City
Mesler, Henry T.	Rockport	Hooton, Massena M.	Peoria
Lynn, Edward E.	Chicago	Gregory, John	Farmington
Young, John W.	Chicago	Gutb, Israel J.	Peoria
Pogue, Joseph	Edwardsville	Stewart, Elam L.	Carmi
Vogel, Edward	St. Louis, Mo.	Poindexter, John	New Haven
Stephenson, Robert	Chicago	Berry, Daniel	Carmi
McCord, David O.	York	Coatesville, George	Chicago
Fitch, George W.	Chicago	Pierce, William P.	Lisbon
Bills, A. W.	Chicago	Rankin, Andrew C.	Loda
McVicker, Brock	Chicago	Forshee, Thomas W.	Tonica
Lamphier, Albert H.	Springfield	Kopp, Frederick E.	Chicago
Lynn, Isaiah P.	Chicago	Brudick, Frank N.	Sycamore
Goodwin, Azro E.	Chicago	Zahn, John	Chicago
Reece, Madison	Chicago	Hance, Samuel F.	Aurora
Powell, Edwin	Chicago	Tuttle, Herman B.	Chicago
Durham, Benj., Jr.	Chicago	Thombs, Pembroke R.	Chicago
Bucher, Charles A.	Batavia	Davidson, John B.	Rock Island
Beers, Edwin A.	McHenry	Hinckley, Darwin	Leland
Bond, George O.	Griggsville	Scott, John H.	Metropolis
McPherson, Henry O.	Jacksonville	Strong, Henry	Chicago
Rich, Kendall E.	Henry	Thompson, Charles A.	Urbana
Ellinwood, Charles N.	Chicago	Honnold, Albert M.	Chicago
Strong, Henry	Rockford	Leroy, David	Rockford
Fisher, Cheseldon	Freeport	Phillips, Edgar L.	Knoxville
Coates, Albert L.	Chicago	Miller, James N.	Tamara
Phillips, George W.	Dixon	Day, William T.	Raritan
Ravenot, Octave P. F.	Brooklyn	Helm, Clinton	Byron
Corbus, John C.	Como	Winston, Thomas	Mt. Morris
Utey, Henry	Griggsville	Stephenson, Nathan	Fair Haven
Hatch, Seth C.	Middleport	Huyette, Joseph	Camden Mills
Blades, Franklin	Onarga	Hopkins, Samuel A.	Dover
Babcock, William A.	Morris	Griswold, Charles A.	Fulton
Ridgeway, Emanuel	Morris	Ross, Joseph C.	Waynesville
Balcom, H. S.	Morris	Stewart, Archibald E.	Heyworth
Winnie, Charles	Magnolia	Payne, Selden M.	Chicago
Cowen, Jesse M.	Minonk	Skaggs, Lewis H.	LeRoy
Stoner, John	Chicago	Woodward, George N.	Belvidere
Sigler, William F.	Chicago	Green, John W.	Marengo
Allen, Joel	Macomb	Merritt, Ansel D.	Woodstock
Jordan, Thomas M.	La Prairie	Suiter, Walter F.	Marengo
Moss, Samuel C.	Dallas City	Giddings, Josiah	Warren
McIntire, Elihu S.	Hamilton	Martin, Charles	Warren
Githens, William H.	Industry	Pierce, Byron G.	Waukegan
Creel, Durham M.	Mound City	Evans, Moses	Courtland
Young, Stephen J.	Tuscola	Sheffield, Daniel A.	Courtland
Wheeler, Thomas J.	Arcola	Byers, Frederick	Bloomington
McAllister, Henry C.	Alma	Willard, Samuel	Cairo
Abbott, Nathan W.	Alma	Turner, William D.	Alton
McDill, David	Upper Alton	Davis, Charles	Carlinville
Rogers, Ebenezer	Delhi	Smith, Constantine M.	Liberty
Barry, Edward L.	Randolph County	Lackey, Robert M.	Arcola
Clendenin, Moses W.	Duquoin	McAllister, Henry C.	Louisville
Dyer, Lewis	Duquoin	Barnes, Allen T.	Louisville
Hamilton, Samuel	Pecatonica	Vertrees, Samuel E.	Effingham
Neeley, Isaac M.	Perry County	Groves, John N.	Pittsfield
Groesbeck, John E.	Chicago	Ledlie, Joseph H.	Pittsfield
Campbell, Abel	East St. Louis	May, Edwin	Joliet
Schloetzer, George	Peoria	Heise, Adolphus W.	Joliet
Boerner, Charles E.	Chicago	Woodruff, Henry T.	Wilmington
Brendel, Emil	Shiloh Hill	Harwood, Elvis	Candem
Bergb, Oscar Julius	Henderson	Brown, Albert W.	Winchester
Brown, John R.	Henderson	Harvey, George E.	Waverly
Deitzel, Herman	Henderson	Roberts, Clarke	Newark
Cooper, Esaias S.	Mercer County	Kimber, Alonzo	Jacksonville
McClanahan, John P.	Shelby County	Robbins, Henry C.	Randolph County
Cuthbert, William L.	Clarksville, Tenn.	Smith, George S.	Monmouth
Cooper, Edwin H.	Macomb	Henderson, Eli F.	Onoda
Kyle, James B.	Biggs	Rice, David P.	Stanway
McDill, David	Biggs	Hamilton, William	Bigger
Hunter, Frank W.	Vermont	Stanway, Thomas S.	David P.
Marshall, Samuel W.	Sparta	Bigger, David P.	Henderson
Marshall, Elijah L.	Keithsburg	Morris, Richard	Ellisville
Walker, James P.	Mason City	Buck, Sidney S.	Fairview
Dieffenbacher, Philip L.	Havana	VanBrunt, James W.	Bernadotte

Dyer, Reuben G.....	Ottawa	Jasoy, John.....	Aurora
Freeman, Julius A.....	Newark	McElroy, John J.....	Catlin
Hamilton, Thomas B.....	Wenona	Mills, Charles H.....	Champaign
Potter, Horace S.....	Chicago	Wright, Owen.....	Mason
Waterman, Alfred.....	Warrenville	Henton, DeWitt C.....	Myersville
Beggs, George W.....	Naperville	Erving, Loel F.....	Kewanee
Lanphear, Albert H.....	Lincoln	Hunt, Charles A.....	Urbana
Bettelheim, Bernard J.....	Cayuga	Bridges, Vernon R.....	Mattoon
Lee, Ethan A.....	Mattoon	Mills, Erastus E.....	Lovington
Ellsworth, P. Harvey.....	Lincoln	Washburn, Thomas D.....	Hillsboro
Roberts, William F.....		Gore, Joel R.....	Chicago
Barker, Frederick H.....		Clark, Anson L.....	Elgin
Fellows, A. M.....	Lincoln	Anthony, Julius P.....	
Wright, John.....	Clinton	French, George W.....	Benton
Coffin, Nelson G.....	Monticello	Johns, Harvey C.....	Decatur
Radmore, Charles C.....	Wenona	Johnson, Darius.....	Pontiac
Cary, John.....	Peoria	Wood, Orlando S.....	
Goodwin, Azro E.....	Rockford	Waters, William H.....	
Conover, Richard A.....	Eureka	Wilcox, Lewis K.....	Warsaw
Kinnear, Anthony E.....	Eureka	Wilkins, David.....	Greenville
Dewey, John S.....	Troy	Barry, Edward L. H.....	Delhi
Henley, John E.....	Dongola	Sigler, William F.....	Flora
Dewey, George H.....	Collinsville	Brown, Joseph.....	Metropolis
Pace, Williamson C.....	Ashley	Lagore, Enoch.....	New Liberty
Plummer, Hiram S.....	Mount Vernon	Bumstad, Samuel J.....	
Phillips, James.....	Nashville	McDonough, A. A.....	Baden Baden
Swan, Samuel M.....		Baker, Robert F.....	Moline
Rainey, John K.....	Salem	Adair, William R.....	Chicago
Hawley, Thomas S.....	Salem	Yerkes, Titus P.....	
Spalding, John E.....	Galesburg	Floger, Henry A.....	Fidelity
Milliken, Luther S.....	Wyoming	Corr, James B.....	Carlinville
Jones, Chas. DeHaven.....	Geneseo	Danforth, Willis.....	Joliet
Phillips, Wesley.....	Burnt Prairie	Jenkins, Joseph M.....	
Mack, Joel M.....	Kankakee	Birney, Samuel H.....	Urbana
Brown, Lucien B.....	Sheldon	Williams, James A.....	Kansas
Sulcer, Abraham A.....		Lacrone, John.....	Effingham
Bailey, William N.....	Kankakee	Thompson, John H.....	
Higgins, James M.....	Griggsville	Huston, William A.....	Macomb
Van Meter, Henry.....	Williamsville	McNeall, Nathan H.....	Columbus
Wilson, John F.....	Tallula	Scroggs, Robert G.....	Bushnell
French, Alvin S.....	Springfield	Rowe, James J.....	Avon
Copestake, John C.....	West Jersey	Bigger, David P.....	Wataga
Moore, Enoch W.....	Decatur	Ferguson, Smith T.....	Morris
Higgins, Charles W.....	Centralia	Latimer, Charles C.....	Peoria
Pand, Garner H.....	Payson	Pierce, Allen M.....	Tremont
Blalock, Nelson G.....	Mount Zion	Shugart, Joseph.....	
Loomis, Clark E.....	Chicago	Phillips, George W.....	Dixon
Jones, James A.....	Delavan	Watson, Francis W.....	Marengo
Barnes, Ira N.....	Decatur	Hagemann, Francis E.....	Elgin
Heckleman, John A.....	Decatur	Shepard, Asa E.....	Freeport
Hosteter, Jos. A. W.....	Decatur	Colling, Russell J.....	
Wiley, Martin.....	Trenton	Albin, George W.....	Neoga
Hood, Humphrey H.....	Clinton County	Walston, Robert L.....	Ridge Farm
Jennings, Thomas C.....	Clinton County	Bluthardt, Theo. J.....	Alton
Reece, Madison.....	Abingdon	Boyd, Henry W.....	Bloomington
Boude, John K.....	Carthage	Benckerman, Frederick.....	St. Louis, Mo.
Nichols, Elmer.....	Aurora	Meacham, Joseph.....	Waverly
Corey, Vaughn B.....	West Point	McMahon, Robert W.....	Chenoa
Numroe, Thomas.....	Rushville	Boyd, Henry W.....	Chicago
Woods, Reuben.....	Quincy	Hess, William H.....	Homer
Byrns, George A.....	Cooperstown	Emmons, Francis A.....	Chicago
Guild, Phineas K.....	Aurora	VanBuren, Evert.....	Chicago
Hamilton, James.....	Springfield	Adair, William R.....	Chicago
Wardner, Philip J.....	Chicago	Conley, William J.....	Chicago
Woodmansee, Chas. S.....	Abingdon	VanBuren, Evert.....	Chicago
Brownell, Seely.....	Chicago	Nichols, George W.....	Chicago
Knox, William A.....	Virden	Smith, Frank N.....	Quincy
Seamon, Marinus E.....	Shipman	Drake, Thomas B.....	
Mathews, John P.....	Scottsville	Liun, David C.....	Quincy
Norris, Andres S.....	Cairo	Winston, Thomas.....	Mt. Morris
Allen, Horace R.....	Charleston	Green, Adolphus.....	Warsaw
Phillips, John M.....		Mercer, Samuel D.....	Salem
Ballou, Alvin.....	Princeton	Buck, Harmon A.....	Marengo
Kelso, Henry A.....		Jenkins, Joseph M.....	Jefferson
Watson, Francis W.....	Marengo	Cox, James C.....	Yatesville
Angell, Leland H.....	Aurora	Spilman, Charles H.....	Edwardsville
Kay, James E.....	Liberty	Stillman, Walter D.....	Lacon

Cass, Frank D.....	Broadwell
Cole, Frederick.....	Rockford
Plummer, Hiram S.....	Sand Ridge
Catlin, Edward P.....	Rockford
Vanzant, George W.....	
Adair, William R.....	Chicago
Chesbrough, Henry T.....	Chicago
Scott, Amos.....	Pecatonica
Rust, Melvin W.....	Chicago
Kuechen, Gustavus A.....	Keokuk, Ia.
Shurtleff, Flavel.....	Chicago
Collins, Russell J.....	Pocahontas
Hendec, Clark K.....	Nauasay
Knoblock, Otto.....	Chicago
Hess, William H.....	Cook County
Penfield, William P.....	Chicago
Godfrey, Henry T.....	Cook County
Parker, Henry M.....	Chicago
Lanphere, Albert H.....	Lincoln
Bigelow, Asa.....	Attica, Ind.
Hunt, J. Spafford.....	Sycamore
Irwin, Charles N.....	Mt. Sterling
Dow, Darius A.....	Massachusetts
Luce, Hiram C.....	Bloomington
Higgins, Charles W.....	Centralia
Ensey, John B.....	New Salem
Watts, William.....	Robinson
Kendall, Charles B.....	Chicago
Niglas, John N.....	Peoria
Rankin, Clark D.....	Peoria
Stahl, Daniel.....	Quincy
Riggs, Thomas J.....	Chicago
Norred, Charles H.....	Dawson
Hard, Abner.....	Aurora
Crawford, Samuel K.....	St. Charles
Nelson, Eugene.....	St. Charles
Brackett, Charles.....	Rochester, Ind.
Wilson, William E.....	Harristown
Shutt, Augustus A.....	Springfield
Higgins, John.....	Crown Point, Ind.
McCarthy, John.....	Chicago
Storck, Charles.....	Chicago
Lake, Leonard.....	Belvidere
Bailhache, Preston H.....	Springfield
Moore, David N.....	Carlyle
Parker, Henry.....	Washington, D. C.
Webber, Nathaniel W.....	Sangamon County
Stangland, Eleazer N.....	
Crawford, Samuel K.....	St. Charles
Dow, Samuel A.....	Galesburg
Andrews, Edmund.....	Chicago
Woodworth, John M.....	
Williams, Hezekiah.....	Alton
Fansom, Giles P.....	
Mackay, David.....	New York City
Ewen, Clarence.....	Middletown, N. Y.
Evans, David J.....	Morgantown, N. Y.

PRESIDENT COOLIDGE AGAINST FEDERAL AND STATE SUBSIDIES

President Coolidge (at budget meeting, January 21, 1924) said:

"I take this occasion to state that I have given much thought to the question of Federal subsidies to State governments. The Federal appropriations for such subsidies cover a wide field. They afford ample precedent for unlimited expansion. I say to you, however, that the financial program of the Chief Executive does not contemplate expansion of these subsidies. My policy

in this matter is not predicated alone on the drain which these subsidies make on the national treasury. This of itself is sufficient cause for concern. But I am fearful that this broadening of the field of governmental activities is detrimental both to the Federal government and the State governments. Efficiency of Federal operations is impaired as their scope is unduly enlarged. Efficiency of the State governments is impaired as they relinquish and turn over to the Federal government responsibilities which are rightfully theirs."

NORTH CAROLINA EDITOR PROTESTS CHILDREN'S BUREAU FIGURES

The following from the *Woman Patriot*, February 15, 1924, is reproduced for educational purposes. It shows how the Children's Bureau distorts figures to suit the end desired the same as was done in the attempt to bolster up statistics to get enacted the abortion known as the Sheppard-Towner Maternity Act. It has been well said that the experts in the Children's Bureau can bolster up statistics to make a dollar look like thirty cents or thirty cents look like a dollar whichever may suit their purpose.

The following protest against propaganda put out by the Federal Children's Bureau in favor of a Child Labor Amendment, has been made to Secretary of Labor James J. Davis, and brought to the attention of the House Judiciary Committee, by David Clark, editor of the *Southern Textile Bulletin*.

Charlotte, N. C., Sept. 26, 1923.

Hon. James J. Davis,
Secretary of Labor,
Washington, D. C.

Dear Sir:

We wish to file protest against the contemptible and underhand campaign that is now being waged by the Children's Bureau of the Department of Labor, in their effort to secure Federal legislation which will transfer to their departments powers and patronage now held by the labor departments of the several states.

We realize fully the great increase in power and patronage that would accrue to the Children's Bureau, if they could concentrate in their department the control of child labor now held by 48 states, but the desire for power and patronage with its incidental increases in salaries, does not justify any government department in the use of underhand work or the tricky interpretation of statistics.

Within the past two weeks, a skillfully prepared story has been sent out from Washington with the result that a headline article entitled "Thirty-five Per Cent Increase in Child Labor" has appeared in most of the leading papers of this country.

It was a splendid piece of propaganda from the standpoint of those who sought the enactment of a Federal Child Labor Law, for they knew that the public has not the time to examine the facts, but it was a contemptible piece of publicity work on the part of those who were responsible for same.

The periods selected for comparison were the first six months of 1922, when there was unemployment and idleness in almost every industrial section, and the first six months of 1923, which composed a period of unusual industrial activity. There were far more people employed during the first half of 1923 than during the same period in 1922, and, of course, many young people of 14 to 16 years of age, who were in enforced idleness during the first half of 1922, were able to get employment in 1923.

There is no evidence that there was a greater increase in the employment of young people of 14 to 16 years of age than of older persons, nor is there any evidence that there was any employment in violation of state laws or outside of the limits of the recent Federal Child Labor Law.

Had the first half of 1922 been compared with 1919 and 1920, it would have shown a marked decrease in the employment of those between 14 and 16 years of age, just as it would have shown a decrease during that period of older persons, but it would have been an unfair comparison.

We might compare the tourists in Florida during the first quarter of 1923 with those present during the second quarter and state that there was a 90 per cent decrease in the Florida tourist business. It would be just as logical and fair as the recent comparison showing "35 per cent increase in child labor."

It was a tricky and underhand use of statistics, which conveyed to the public the idea that child labor had increased 35 per cent since the Federal Child Labor Law had been declared unconstitutional, and yet there was no evidence whatever that any of the increased employment was due in any way to the cancellation of the Federal Child Labor Law. An examination of the statistics show that the larger part of the 35 per cent increase was in states that have restrictions as high or higher than the Federal Child Labor Law. It was a contemptible piece of work and we are informed that government funds paid for the publicity.

During the hearing upon the proposed Federal Amendment, Miss Grace Abbott gave out the statement that 1,060,850 children from 10 to 15 years were employed in gainful occupations. That statement was sent all over the country and carried with it the impression that more than a million little children of around 10 years of age were employed in factories. An examination of Census Report from which the "more than 1,000,000 little children" item was obtained shows that 682,795 of those included were about 14 years of age or above, and most of them were employed under restrictions equal to or higher than those of the Federal Child Labor Law.

The statistics showed that only 378,063 under 14 years of age worked in gainful occupations, and of

that number 328,958 were employed in agriculture, forestry and animal husbandry, and it is reasonable to assume that most of them worked on their parents' farms. Another 38,958 were employed in domestic and personal service, clerical occupations, etc., meaning messenger boys, newsboys, etc.

The Census Bureau 1920 table of occupations of children under 14 years of age plainly states:

In extraction of minerals..... 647

In manufacturing and mechanical industries...9,473

Thus under analysis the "Scare Head" story of "Over a Million Little Children Working," dwindles to 9,473 employed in manufacturing, and 647 employed in the extraction of minerals, and there is no indication that these were regularly employed, many of them undoubtedly worked for a few weeks under special permits during their summer vacation.

Had Miss Abbott stated that 9,473 children of all those under 14 years of age in the United States were employed in manufacturing and 647 in the extraction of minerals her story would have fallen flat, but the story that "more than a million children" from 10 to 15 years of age inclusive were employed in gainful occupations found front page space in the papers and furthered the effort of Miss Abbott to get powers of the several States concentrated in her department.

In a recent address, former Governor Lowden of Illinois, a prominent candidate for President at the last Republican National Convention, denounced the attempts of various bureaus in Washington to infringe, as he put it, upon the rights of the States as individuals.

Propaganda, he said, is daily being carried on by these bureaus, "under the guise of liberal contributions to the State, which will result in taking from the Federal Treasury hundreds of millions of dollars for objects which must remain in the care of the State if the State is to remain an entity in our National system."

He expressed the opinion that the country is now entering upon an era of "indiscriminate amendments" to the Federal Constitution. Once, he stated, the representatives of the people in Congress regarded the Constitution so sacredly that an amendment thereto was approached with something of awe. But today, he further declared, amendments to the Constitution seem regarded as hardly more than the enactment of a statute is regarded.

Governor Lowden said further that if this spirit was allowed to grow unchecked, "it will not be long before the States are mere satrapies, with all power issuing from Washington."

In reverting to constitutional amendments, he mentioned the bill which would regulate child labor, said he thought the welfare of the child in this respect was a noble thing, but asked where, if Federal intervention were permitted in this respect, will the Federal Government stop?

The Federal Government, said Governor Lowden, tends to encroach more and more the just prerogatives of the State. *Bureaucracy at Washington is always*

alert to extent its power. It does not distinguish between those functions which pertain to the Federal Government and those which under our scheme of Government belong exclusively to the State.

We know of no set of men nor manufacturers who today seek or desire child labor.

The States have steadily advanced their standards until there are practically none who permit the employment of children in factories under 14 years of age, and there is no basis for any claims that the States are not enforcing their laws. The 1920 Census Report from which Miss Abbott secured her "More than one million little children" propaganda also shows that from 1910 to 1920 there was a 72.6 per cent decrease in the employment of those under 14 years of age in mines and 71.1 per cent decrease in their employment in manufacturing industries.

When the Government was formed the States reserved to themselves certain rights and one of them was the regulation of the labor of its citizens.

There is no good reason why a Federal Child Labor Law should be enacted and no good can be accomplished by its enactment that can not be accomplished under State control. The present demand for a Federal Child Labor Law comes very largely from the Children's Bureau of the Department of Labor, who have more interest in the patronage they will secure than in the welfare of the child. It may be proper for them to seek to secure such power and patronage, at the expense of the States, but the methods they are using through the tricky use of statistics in order to arouse a false public sentiment are contemptible and unfair.

We therefore file this protest, and ask your serious consideration of same.

Very respectfully,

DAVID CLARK, Editor,
Southern Textile Bulletin.

THE TRUTH ABOUT CHILD LABOR

Before publishing the foregoing statement by Mr. Clark, in which serious charges are brought against the good faith of the Children's Bureau, it was thoroughly investigated. The Chief of the Children's Bureau, Miss Grace Abbott, put out a signed article for last Labor Day, printed with flaming headlines in the *New York Call* (Socialist), September 3, 1923, the *New Majority* (Farmer-Labor), and other radical publications, containing the following leading paragraph.

"Labor Day in 1923 finds more than 1,000,000 children between 10 and 15 years of age working in the United States. Nearly 400,000 are from 10 to 13 years of age. The census does not report those who are under 10. They are employed in mills, factories, mines and tenements, on the farms, in trade, and as servants for adults."

Nowhere in this *propaganda article* did the Chief of the Children's Bureau mention the fact that 647,309, or 61 per cent of those children were working *on farms*; 569,824, or 88 per cent, of these farm children

working "*on the home farm*" under their own parents or guardians. Nor did the Chief of the Children's Bureau point out that of the "nearly 400,000" from "10 to 13" (meaning under 14) that *only* 9,473 are employed in manufacturing and mechanical industries throughout the United States. The radical press has been printing such propaganda articles for more than a year. The *New York World* has published an entire series headed "A Million Children Who Slave." If the *New York World* would run a sub-heading, stating that the majority of these "slaves" (569,824, or 53.7 per cent) were in "slavery" on the home farm, *under their own parents*, every reader would grasp the absurdity of the headline at once. There is no excuse whatever for such propaganda, stressing *part* of the truth to convey false and misleading impressions. There was less excuse for the propaganda articles put out by the Chief of the Children's Bureau in the radical press for Labor Day than for those of a sensational reporter for the *New York World*, for the Children's Bureau *knew better*, and although the whole truth was not mentioned in Miss Grace Abbott's propaganda article for Labor Day, the following table was printed by the Children's Bureau, in its official booklet, "Child Labor in the United States," 1923.

Occupations of Children, by Age Groups, 1920

Occupation	10 to 15 years, Inclusive		10 to 13 years, Inclusive	
	Number	Pct.	Number	Pct.
Agriculture, forestry and animal husbandry	647,309	61.0	328,958	87.0
Farm laborers (home farm)	569,824	53.7	.....	(1)
Farm laborers (working out)	63,990	6.0	.....	(1)
Extraction of minerals	7,191	.7	647	.2
Manufacturing and mechanical industries	185,337	17.5	9,473	2.5
Transportation	18,912	1.8	1,899	.5
Trade	63,368	6.0	17,213	4.6
Public service (not elsewhere classified)	1,130	.1	153	(2)
Professional service	3,456	.3	621	.2
Domestic and personal service	54,006	5.1	12,172	3.2
Clerical occupations	80,140	7.6	6,927	1.8

(1) Not computed for 1920.

Total 1,060,858 100.0 378,063 100.0

Also, in its official booklet, "Child Labor, Outlines for Study," issued April 1, 1923, at page 11, the Children's Bureau declares:

"Over a million (1,060,858) children, 10 to 13 years old, inclusive, were reported as employed in some wage-earning occupation at the Fourteenth Decennial Census (1920). Of these *less than one-fifth* were employed in occupations affected by the Federal child labor law and *only about one-third* in occupations affected by State child labor laws. The majority (61 per cent) *were engaged in agricultural pursuits*, chiefly as farm laborers, and were, therefore, *subject to almost no regulation*, either State or Federal."

Therefore, of the alleged "million children who slave" not more than *one-third* would be affected by a Child Labor amendment *unless it applies to farm children*.

The proposed McCormick-Foster Child Labor Amendment gives Congress power to limit, regulate or prohibit the labor of *all children* under 18. It is a *blanket proposal* under which Congress can prohibit the labor of all children under 18 *on the farm and in*

the home, as well as in the factory and the shop. Advocates argue that Congress "might not" exercise this extreme power. Every experience is against this theory. Congress generally uses its powers to the extreme limit—and then always stretches them as far as it can beyond the ordinary meaning of the words in the Constitution which are claimed to confer it. It is a question of power, not of confidence in individuals, or in the majority of a quorum of a future Congress. Why do the lobbyists and Bureaucrats want this extreme power conferred on Congress unless they intend to take advantage of it? To ask the question is to answer it. They want power to go the limit—any limit they choose with all children under 18. They ask power to prohibit all work of all 17-year-old children on the farm and in the home, and hypocritically say at the same time, "Please trust us not to use all the power we now demand!" As Jefferson said in 1798, "Therefore, let there be no more question of confidence in individuals, but bind them down from mischief with the chains of the Constitution!" (Kentucky resolutions of 1798).

CONGRESSMAN MADDEN ON FEDERAL SUBSIDIES AND TAXATION

(Extracts from an interview with Martin B. Madden, Chairman, Committee on Appropriations, House of Representatives, published originally in the Saturday Evening Post, Aug. 18, 1923, and reprinted in the Congressional Record, Feb. 5, 1924)

"At one and the same time the people are complaining of high taxes and demand more government expenditures. In the cities they want better water supplies, improved street lighting, more streets paved, more and better schools, more parks and playgrounds; and in the country they demand better roads and schools.

"These are all splendid aspirations, in keeping with American ideals for better living conditions, but they increase government cost and call for more and more taxes or the issuance of bonds, which are only debts charged up against the taxpayers, to be paid by them or their children at some future time, plus interest until the principal is paid. We can't eat our cake and have it. We shall have to adopt in taxation the old motto 'Whatsoever you want, pay the price and take it.'

"One remedy would be a more equitable method of taxation—more taxpayers. Only 6 per cent of the population pay any Federal income taxes, and it is estimated that only one-third of the people pay any taxes at all, Federal, State, or municipal. That not only puts the cost of government on a small minority, but it offers inducements to the large majority, the non-taxpayers, to vote recklessly for every proposition that will increase government cost. This situation was illustrated by a jocular remark of Senator John Sharp Williams, of Mississippi, when the income-tax amendment to the Constitution was before Congress. Mr. Williams said in the cloakroom, 'I'm for it, because it won't bear very heavily on my constituents. With such an amendment we can make New York pay one half the expenses of the Government, and Pennsyl-

vania, Ohio, and Illinois the other half.' Though that was said in jest, it is marching toward a reality. Last year the four States of Massachusetts, New York, Pennsylvania, and Illinois paid more than one-half of the income and profits tax and one-half of the total internal revenue collected by the Federal Government. The 44 other States paid the other half. That was not accidental. It was the spirit of the agitation for the income-tax amendment and the legislation that followed. The great majority, who do not pay income taxes, insist on soaking the rich, not realizing that the more direct taxes placed on business enterprise, the more indirect taxes will be placed on the masses by the increased cost of living. The industrial centers paid the income taxes. In 1921, Chicago had 420,621 of the 611,558 income-tax payers in Illinois. The agricultural parts of the State paid small income taxes and made comparatively few returns. The tax therefore fell on industry, the same as did the increased State taxes, and helped to increase the cost of production and therefore the cost of living."

Mr. Madden was asked if he would make the income tax apply to all, regardless of their incomes. "Why not? It would be less of a burden to the poor man to pay a dollar or two income tax than to pay double the amount in increased cost of living. It is a fallacy that any part of the people can escape sharing in the cost of government. They all pay in one way or another, and I think it would be better for every citizen to pay directly a part of the cost of government. It would bring him to realize that the cost must be met by taxation, either direct or indirect. It would also help him to recognize himself as in part responsible for the administration of the Government by informing himself as to how his money is spent. If we could get that idea into all our heads, we might pay less attention to the voice of the demagogue and the charge that the interests own and control the Government. I think that the suspicion of the interests is largely psychological, the development of a natural human suspicion that those who make the laws pay more attention to those who pay the cost of government than to those who do not pay anything. A man who owns no railroad stock would not presume to have any direct voice in the management of the railroad; and government not being an eleemosynary institution, the man who pays no taxes lets his mind work in the same way and believes what the demagogue tells him about the interests that do pay heavy taxes, controlling the Government supported by taxation.

THE WORLD'S HEAVIEST TAXPAYERS

"We might even kill off some of the demagogues by making every citizen a paying stockholder in the Government, for the man who pays taxes is more inclined to want to know the whys and wherefore of appropriations of public money. He would most likely want to know whether it was appropriated to pay for some necessity or merely for some scheme that some other fellow thought desirable.

"From my observation and investigation, we are the

heaviest taxpayers in the world. In Great Britain substantially all the taxes are assessed by Parliament and the citizen pays one set of taxes. Of course, there are the local poor rates, but they do not figure in the taxes for government cost. In this country we have Federal taxes, State taxes, city taxes, highway taxes, school taxes, park taxes, drainage taxes, different organizations of Government assessing these taxes, and when all are combined they aggregate a higher rate of taxation than they have in Great Britain.

"I figured up my taxes last winter, just before I made out my income-tax return, and found that I had paid 32 per cent of my income in local and State taxes. My case is not an unusual one. The same applied to practically all business men, and when we compare our Federal taxes with those of Great Britain we ignore the principal governmental cost in this country. The heaviest governmental cost and taxation here are in the States and cities and on the farms. Secretary Wallace, in his last report, says that an investigation and answers to a questionnaire from the Department of Agriculture indicated that the farmers' taxes in Ohio, Indiana, and Wisconsin trebled between 1913 and 1921, and whereas the tax in 1913 represented 10 per cent of the farmer's income, in 1921 the tax represented one-third of his income. These taxes were local, for expense within the county, and within the control of the majority of the people in the county. They were principally for schools and roads. The farmer complained of high taxes and low prices for his products, and at the same time was responsible for the principal increase in his taxes. The people appear to have gone tax wild on roads."

But is not Congress in a way responsible for this increased tax for road building?

"Undoubtedly. Congress was persuaded by agitation and clever propaganda to assume the big-brother or good-uncle attitude by making State-aid appropriations, and it has led to much extravagance, to increased taxes, and bond issues. We passed the good roads bill and Congress has appropriated more than \$350,000,000 to aid the States in constructing hard roads. That was in the nature of seduction to extravagance, and it compelled the States to match Uncle Sam's dollar with their own. Some States could not afford the expenditure, but pride and the offer of Uncle Sam to go halves led them toward bankruptcy. To get more money, they projected big road-building plans, and some of the poorer States got more of the Federal apportionment than some of the most prosperous States. They got more than they could digest. Then they assumed that Uncle Sam, having gone into partnership with the States, would share in the expense of the upkeep of their highways. They were disappointed when Congress last year amended the law and provided that no aid should be given for any road construction until the State gave guaranty for the upkeep of that road. Some went so far as to charge that this act was one of repudiation of the contract entered into by the Federal Government. It had to be done to prevent the waste of public money from the State

treasuries as well as from the Federal Treasury on extravagant road projects that did not promise stability, to prevent the building of cheap roads that would soon need repairing or rebuilding.

"The maternity act, passed November, 1921, is another example of state aid which some states do not want and yet will have to be taxed to give the aid to other states that accept. One or two states are already trying to get the act before the Supreme Court to test its constitutionality, because it adds to their budgets to accept the aid and match it with their own appropriations, and because their people will help to pay the Federal cost by Federal taxation. The embarrassment of this state-aid legislation is that it is general in character and is a forced development from Washington rather than a natural growth in the states. The temptation to get something for nothing leads to increase of local taxes and government cost, both Federal and local.

ROBIN HOOD LIBERALITY

"Congress had enacted a good many such laws offering aid to the states without explaining that Congress could not appropriate a dollar for any purpose without first taking it out of the pockets of the people, or a part of them, by taxation. It might be compared to the generosity of Robin Hood. However beneficial some of these state-aid appropriations may be, the legislation is wrong in principle. The Federal government ought to levy taxes only to meet the necessary expenses of the Federal government and such public works as it controls. The states should be left free to govern themselves and assess such taxes as will meet their government cost without the encouragement of Uncle Sam. They ought not to be seduced into extravagant expenditures of their own revenues under the impression that the Federal government is making them free gifts of money which has to be taken from the citizens of the states in Federal taxes."

How about the centralization of government as applied to taxes?

"Yes; that is another side of the tax problem. The taxpayers in the cities and the states surrender control of much of their own taxes for a mess of pottage cooked here in Washington. They pay their city taxes, but pay little attention to the use of the city revenues until there is inefficiency and sometimes graft. Then they appeal to the state government to take from their city councils some of their powers. The states get tired of paying the expense of such government functions and pass it along to the Federal government, releasing powers that rightly belong to them in exchange for congressional appropriations. Congress accepts the increased power surrendered by the state, assesses new taxes to meet the new government cost, and the taxpayers transfer their tax revenues from their own state treasuries to the Federal treasury. These government functions are administered by satraps from Washington instead of by local officials known to the people and easily controlled by the people. It is by such methods that bureaucratic government develops. The camel's nose of reform gets under the Federal tent and

the bureaucratic camel soon occupies a large part of the tent and feeds on taxation forage. It would be well for the people in the states to remember that the appointment of a man to a Federal office does not add to his brain or to his character, because it is impossible to make a wooden head into a thinking machine by placing him in a government bureau.

APPEALS FOR FEDERAL AID

"Two years ago, when we were considering an appropriation for rural sanitation, the public health authorities of various states and cities came to Washington with the impression that it was another big state-aid proposition and they wanted to get their share. One of these gentlemen from my own state was very solicitous about enlarging the appropriation and extending it to small cities. He lived in one of the most beautiful and progressive cities in the state, but it had gone through an epidemic of typhoid fever. I expressed surprise at a sanitary condition that would develop such an epidemic, and he explained that when the city had saloons the revenue from licenses was apportioned to the sewage department, but that prohibition had cut off that source of revenue. All the other revenues had been apportioned to other city departments—paving, lighting, public library, parks, and so on—and the people would not vote more taxes nor permit the surrender of any of the revenues already apportioned. The outlet of the sewage system in the river became stagnant, the water supply polluted, the state would not help them, and the only relief was in Congress. He thought that Uncle Sam ought to do for that city what it would not do for itself. The people had neglected the most important function of city government and came to Congress for relief.

"Another gentleman, representing the music trade, came to me with an argument in favor of Federal aid to education. His principal interest was in having the government establish a national conservatory of music in Washington and make it free to students from all parts of the country. It was to be a part of an educational department in the government. He was from New York, and I asked if they did not have a conservatory of music in that city. He assured me that they had one of the finest in the world. I picked up the Statistical Abstract and pointed to the cost of public education in this country, amounting to more than \$1,000,000,000 a year. I then called his attention to the fact that New York paid one-fourth of the taxes collected by the Federal government and asked if he thought the people of his state would like to pay one-fourth of an extra billion to make Uncle Sam the national school-teacher and singing master. He looked at the two sets of figures, picked up his hat, started toward the door, but turned about to say, 'I hadn't thought about it in terms of taxation. Thank you for giving me this lesson. I'll go home and try to clear the fog out of the brains of my friends.'

"The man was typical of many ordinarily thoughtful men who have not learned the first and most important question of government—taxation. They will join in any appeal for an appropriation of public money with-

out stopping to think about where the money is to come from. They only know that the treasury vaults are filled with gold and silver, and that the Bureau of Engraving and Printing is printing millions of money. They don't know that the gold and silver and paper money all represent taxes collected from the people."

State subsidies are most dangerous when applied to medical practice.

MARYLAND SEEKS REPEAL OF FEDERAL AID LAWS

(*Baltimore Sun*, January 31)

Abolition of Federal aid to States when such aid is conditional upon similar appropriations by the States themselves is sought in a joint resolution offered in the Senate today.

The resolution was introduced by Senator McCulloch of Garrett County. It is addressed to the Senate and House of Representatives of the United States and requests the repeal of all laws which authorize such appropriations. Congress also is asked in the resolution to eliminate all offices, boards and bureaus created to administer and supervise such appropriations.

POINTS TO GROWING BURDEN

The request points out that such laws compel States to undertake work which they might not wish to assume or lose their share of the Federal appropriation. In the latter event, it is set forth, a State would be compelled to contribute in taxes to work in other States of which its citizens might disapprove and from which they might not derive any benefit.

It is added that such appropriations are becoming burdensome and that in almost all cases the work undertaken properly belongs to the several States and should be done by them without interference.

"It is time to cease centralizing power and authority in the national government in matters primarily of local concern and generally best done under local supervision," it is stated in the resolution.

STATE'S RIGHTS DEMANDED

A concluding paragraph calls attention to the growing demand on the part of the people of Maryland for a return of fundamental principles of government, namely, performance of States' duties and functions by the several States.

The resolution was referred to the Committee on Federal Relations. If passed, copies would be sent to the President of the United States, the President of the United States Senate and Speaker of the House of Representatives and Maryland Senators and Representatives in Congress. The latter would be urged to sponsor the necessary legislation to repeal the offending laws.

The text of the resolution follows:

Whereas, His Excellency, Albert C. Ritchie, Governor of Maryland, has on two occasions when the Governors of the several States were called together by the President of the United States advocated the right of the several States to pass laws relating to the personal liberty of their citizens: and

Whereas, The position thus taken by our Governor

has met with the hearty approval of a majority of the citizens of the State; and

Whereas, The Congress of the United States has enacted laws which encroach upon the rights of the States to regulate their own affairs in this respect; therefore be it

Resolved, By the General Assembly of Maryland that his Excellency, Albert C. Ritchie, Governor of Maryland, be and is hereby commended for his advocacy of States' rights on the above-mentioned occasions as representing the feeling of the great majority of the citizens of Maryland; and be it further

Resolved, That the representatives of Maryland in the Senate and the House of Representatives of the United States in Congress assembled be and are hereby requested and urged to use all honorable means to secure the repeal of Federal laws which Maryland feels encroach upon her rights to legislate on subjects which she considers rightly belong to her and to oppose similar Federal legislation which may be proposed; and be it further

Resolved, That the Secretary of State of Maryland be and is hereby requested to transmit under the Great Seal of this State a copy of the foregoing resolution to his Excellency, the Governor, and to each of the representatives from Maryland in the Senate and the House of Representatives in the Congress of the United States.

MARYLAND WOMEN ASK REPEAL OF MATERNITY ACT

The Maryland Federation of Democratic Women and the Women's Constitutional League of Maryland have both asked the State Legislature to refuse to co-operate with the Federal Maternity Act, and have presented the following petitions:

(From Maryland Federation of Democratic Women)

Your attention is directed to the following resolutions adopted at business sessions of the Federation of Democratic Women:

Whereas, The Democratic platform asserts the right of the States to control those affairs that have no Federal significance;

Wherefore, We ask that the General Assembly refuse to co-operate with the Federal government in regard to the administration of the Sheppard-Towner Maternity Act;

Resolved, That we, the Federation of Democratic Women, oppose the creation of any new Federal or State Bureaus and advocate the abolition of any such existing bureaus as can be consistently abolished;

It is the sense of this, the Federation of Democratic Women, that we are unanimous in our opposition to the introduction in the Federal or State legislative bodies of the so-called "Equal Rights" Amendment to the Federal Constitution.

Respectfully,

(Signed) MRS. MORTIMER W. WEST,

President, Federation of Democratic Women.

(From Women's Constitutional League of Maryland)

"Our organization stands for local self-government and we condemn Federal aid legislation; therefore, we

ask that you refuse to appropriate further money for the Sheppard-Towner Maternity Act. This Act was passed under a perverted interpretation of the Welfare Clause in the United States Constitution, which, if persisted in, will break our dual form of government.

"We ask that you acquaint yourself with the practical results of Federal interference and feel sure that you will recognize that nothing constructive has been accomplished. We believe that our public health work has been weakened by creating a Child Hygiene Bureau which, because of its independent funds, exerts a power out of all proportion to its importance.

"We think that this bureau has disregarded the established methods which have built up public health work in the counties, methods that have gained the support and appealed to the pride and interest of the people, giving them, in addition to general health work, help and instruction in maternal and child hygiene, which can never be divorced successfully from general health problems. Instead of building on this foundation, however, a separate bureau has been established and separate nurses have been employed, these nurses receiving higher salaries than those paid to other public health nurses, this tending to break down the morale of those who have been giving faithful and efficient service for smaller compensation.

"Because of no responsibility to those in State control we are informed that funds granted by the Federal government have been used to supplement salaries and pay travelling expenses and buy equipment.

"We understand that nurses from outside the State have been employed in disregard of the Civil Service rules and, contrary to the Maryland law, no opportunity has been offered for Maryland nurses to compete for the positions.

"Instead of taking up child hygiene in the countries which were backward in public health work, two nurses at three thousand dollars (\$3,000) a year each were put into Washington County, where the Rockefeller money is used, and in consequence there is unnecessary overlapping.

"We believe that there has been a determined effort on the part of those in control of child hygiene to make this work supreme in the Health Department, and while theoretically we can agree that all health problems may be said to originate with the child, nevertheless a human element enters into the matter and must be met with tact and the recognition that co-operation is the basis for all progress. When so-called efficiency sacrifices these factors the time has come to eliminate a discordant element from our health work and renounce a dual allegiance to the State and Federal governments, which will always make for divided responsibility and ineffectual effort.

"There are eminent medical authorities in Maryland who are opposed to Federal interference in public health work as the following statements will show:

"Dr. J. Whitridge Williams, Obstetrician-in-Chief of the Johns Hopkins Hospital, said: 'From my experience with government red tape, I feel very strongly that the general government should undertake nothing that can be done by the States themselves, as I have

found most government agencies extremely wasteful and inefficient.'

"Dr. John Howland, Physician-in-Chief of the Pediatric Department of the Johns Hopkins Hospital, said: 'I do not believe that the way to improve health matters in States except those that have a distinctly national or interstate application is by Federal supervision or control. Public health work depends upon enlightened local interest; it cannot be improved by influence directed from a distance.'

"We are enclosing a copy of our Constitution and you will note that we are opposed to jury duty for women. We believe that they should be exempt from this, as they are from military and police duty, and hope you will do your part to protect us from this additional burden."

(Signed) MRS. REUBEN ROSS HOLLOWAY,
President.

TRI-STATE DISTRICT MEDICAL ASSOCIATION

The Inter-State Post Graduate Assembly, directed by the Tri-State District Medical Association, extends a hearty invitation to the physicians of America who are in good standing in their State or Provincial Societies to attend the annual assembly, which is to be held at Milwaukee, Wisconsin, October 27th, 28th, 29th, 30th and 31st, five full days of post graduate work.

Among the eminent members of the profession and citizens who have accepted places on the program are the following:

Dr. Nicholas Murray Butler, President of Columbia University, New York, N. Y.

Sir Arthur William Currie, President of McGill University, Faculty of Medicine, Montreal, Canada.

Merritte W. Ireland, Surgeon-General of United States Army, Washington, D. C.

Monsieur J. Jusserand, French Ambassador to United States, Washington, D. C.

Edward E. Stitt, Surgeon-General of United States Navy, Washington, D. C.

Professor Theodore Tuffier, Professor of Surgery, Faculty of Medicine, Paris, France.

Dr. John V. Barrow, Los Angeles, Cal.

Dr. W. F. Braasch, Mayo Clinic, Rochester, Minn.

Dr. George E. Brewer, Emeritus Prof. of Surgery, Columbia University, College of Physicians and Surgeons, New York, N. Y.

Dr. Alan Brown, Prof. of Pediatrics, University of Toronto, Faculty of Medicine, Toronto, Canada.

Dr. Ralph C. Brown, Assistant Prof. of Medicine, Rush Medical College, Chicago, Ill.

Dr. C. Macfie Campbell, Prof. of Psychiatry, Harvard University, School of Medicine, Cambridge, Mass.

Dr. Walter T. Connell, Prof. of Medicine, Queen's University, Faculty of Medicine, Kingston, Canada.

Dr. John F. Cowan, Prof. of Surgery, Stanford University, School of Medicine, San Francisco, Cal.

Dr. George W. Crile, Prof. of Surgery, Western Reserve University, School of Medicine, Cleveland, Ohio.

Dr. Samuel J. Crowe, Clinical Prof. of Laryngology, Johns Hopkins University, School of Medicine, Baltimore, Md.

Dr. LeRoy Crummer, Prof. of Medicine, University of Nebraska, College of Medicine, Omaha, Neb.

Dr. Walter E. Dandy, Associate Prof. of Surgery, Johns Hopkins University, School of Medicine, Baltimore, Md.

Dr. William Darrach, Dean and Associate Prof. of Surgery, Columbia University, College of Physicians and Surgeons, New York, N. Y.

Dr. Vernon C. David, Assistant Prof. of Surgery, Rush Medical College, Chicago, Ill.

Dr. David J. Davis, Prof. of Pathology and Bacteriology, University of Illinois, School of Medicine, Chicago, Ill.

Dr. John B. Deaver, Prof. of Surgery, University of Pennsylvania, School of Medicine, Philadelphia, Pa.

Dr. Laurence R. DeBuys, Prof. of Pediatrics, Tulane University, School of Medicine, New Orleans, La.

Dr. George F. Dick, Assistant Prof. of Medicine, Rush Medical College, Chicago, Ill.

Dr. Charles A. Elliott, Prof. of Medicine, Northwestern University, School of Medicine, Chicago, Ill.

Dr. Leonard W. Ely, Prof. of Surgery, Stanford University, School of Medicine, San Francisco, Cal.

Dr. Joseph Evans, Prof. of Medicine, University of Wisconsin, School of Medicine, Madison, Wis.

Dr. A. MacKenzie Forbes, Clinical Prof. of Orthopedics, McGill University, Faculty of Medicine, Montreal, Canada.

Dr. William Goldie, Associate Prof. of Medicine, University of Toronto, Faculty of Medicine, Toronto, Canada.

Dr. Marvin L. Graves, Prof. of Medicine, University of Texas, School of Medicine, Galveston, Texas.

Sir Henry Gray, Royal Victoria Hospital, Montreal, Canada.

Dr. Don M. Griswold, Prof. and Head of Department of Preventive Medicine and Hygiene, State University of Iowa, Iowa City, Iowa.

Dr. Garfield M. Hackler, Prof. of Surgery, Baylor University, School of Medicine, Dallas, Texas.

Dr. John A. Hartwell, Associate Prof. of Surgery and Clinical Surgery, Cornell University, Medical College, New York, N. Y.

Dr. Carl A. Hedbloom, Prof. of Surgery, University of Wisconsin, School of Medicine, Madison, Wis.

Dr. William B. Hendry, Prof. of Obstetrics and Gynecology, University of Toronto, Faculty of Medicine, Toronto, Canada.

Dr. Russell D. Herrold, McCormick Institute for Infectious Diseases, Chicago, Ill.

Dr. Julius H. Hess, Prof. of Pediatrics, University of Illinois, School of Medicine, Chicago, Ill.

Dr. Russell A. Hibbs, Prof. of Orthopedic Surgery, Columbia University, College of Physicians and Surgeons, New York, N. Y.

Dr. Frederick J. Kaltefleiter, Associate Prof. of Medicine, Jefferson Medical College, Philadelphia, Pa.

Dr. Allen B. Kanavel, Prof. of Surgery, Northwestern University, School of Medicine, Chicago, Ill.

Dr. Ralph A. Kinsella, Associate Prof. of Medicine, University of St. Louis, School of Medicine, St. Louis, Mo.

Dr. Francis H. Lahey, Prof. of Clinical Surgery, Harvard University, School of Medicine, Boston, Mass.

Dr. Dean Lewis, Prof. of Surgery, Rush Medical College, Chicago, Ill.

Dr. LeRoy Long, Dean and Prof. of Surgery, University of Oklahoma, School of Medicine, Oklahoma City, Okla.

Dr. William E. Lower, Prof. of Urology, Western Reserve University, School of Medicine, Cleveland, Ohio.

Dr. Charles B. Lyman, Prof. of Clinical Surgery, University of Colorado, School of Medicine, Denver, Colo.

Dr. N. J. MacLean, Associate Prof. of Surgery, University of Manitoba, Faculty of Medicine, Winnipeg, Canada.

Dr. Ralph H. Major, Prof. and Head of Department of Medicine, University of Kansas, School of Medicine, Rosedale, Kans.

Dr. Charles H. Mayo, Mayo Clinic, Rochester, Minn.

Dr. William J. Mayo, Mayo Clinic, Rochester, Minn.

Dr. Edward Miloslavich, Director of Department of Pathology and Bacteriology, Marquette University, School of Medicine, Milwaukee, Wis.

Dr. Roger S. Morris, Prof. of Medicine, University of Cincinnati, School of Medicine, Cincinnati, Ohio.

Dr. Bernard H. Nichols, Department of Roentgenology, Cleveland Clinic, Cleveland, Ohio.

Dr. Walter L. Niles, Dean and Prof. of Clinical Medicine, Cornell University, School of Medicine, New York, N. Y.

Dr. William F. Petersen, Associate Prof. of Pathology and Bacteriology, University of Illinois, School of Medicine, Chicago, Ill.

Dr. Dallas B. Phemister, Assistant Prof. of Surgery, Rush Medical College, Chicago, Ill.

Dr. Harry M. Richter, Prof. of Surgery, Northwestern University, School of Medicine, Chicago, Ill.

Dr. Stanley P. Reimann, Director of Laboratories, Lankenau Hospital, Philadelphia, Pa.

Dr. David Riesman, Prof. of Clinical Medicine, University of Pennsylvania, School of Medicine, Philadelphia, Pa.

Dr. Milton J. Rosenau, Prof. of Preventive Medicine and Hygiene, Harvard University, School of Medicine, Boston, Mass.

Dr. E. C. Rosenow, Mayo Clinic, Rochester, Minn.

Dr. G. W. Stevens, Milwaukee, Wis.

Dr. Wallace Irving Terry, Prof. of Surgery, University of California, School of Medicine, San Francisco, Cal.

Dr. John H. J. Upham, Prof. and Head of Department of Medicine, University of Ohio, School of Medicine, Columbus, Ohio.

Dr. George Gray Ward, Jr., Prof. of Obstetrics and Gynecology, Cornell University, School of Medicine, New York, N. Y.

Dr. Louis M. Warfield, Prof. of Internal Medicine,

University of Michigan, School of Medicine, Ann Arbor, Mich.

Dr. George Weaver, McCormick Institute for Infectious Diseases, Chicago, Ill.

Dr. Charles J. White, Prof. of Dermatology, Harvard University, School of Medicine, Boston, Mass.

Dr. Charles S. Williamson, Prof. of Medicine, University of Illinois, School of Medicine, Chicago, Ill.

Dr. Milton C. Winternitz, Dean of Yale University, School of Medicine; Prof. of Pathology and Bacteriology, New Haven, Conn.

Dr. John A. Witherspoon, Prof. of Medicine, Vanderbilt University, Medical Department, Nashville, Tenn.

Dr. John L. Yates, Milwaukee, Wis.

Dr. Hugh H. Young, Clinical Prof. of Urology, Johns Hopkins University, Medical Department, Baltimore, Md.

Dr. Abraham Zingher, Assistant Prof. of Hygiene, University and Bellevue Hospital, Medical College, New York, N. Y.

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INVITATION TO AMERICAN PHYSICIANS

This Association is supervising an Inter-State Post Graduate Clinic Tour to Canada, British Isles and France, to start May 18, 1925. Leading teachers and clinicians of Canada and Europe will arrange and conduct clinics and demonstrations in the following clinic cities:

Toronto and Montreal, Canada; London, Liverpool, Leeds, Manchester and Newcastle, England; Edinburgh and Glasgow, Scotland; Dublin and Belfast, Ireland; Paris, Lyon and Strasburg, France.

Besides the main tour, special tours to practically all the leading centers of Europe will be arranged. Sight-seeing trips to all places of interest in the countries visited will be included in the regular tour.

Cost of tour, including first-class hotels, board, steamship, clinic arrangements and all ordinary traveling expenses, under \$1,000.00.

The tour is open to physicians in good standing in their State Societies, their families and friends who are not physicians.

For information, write the Managing-Director, William B. Peck, Freeport, Ill.

ILLINOIS STATE HEALTH DEPARTMENT CO-OPERATIVE COUNTY HEALTH WORK

NEED AND PURPOSE

The State Department of Public Health with the assistance of the United States Public Health Service and the International Health Board, has undertaken an intensive campaign for the improvement of health

conditions in Illinois, especially in the rural districts of the state. The need for such work is shown by the higher sickness and death rates from preventable causes in rural districts and in small towns than in the larger cities.

In order to demonstrate to the people of the state the usefulness and economy of applying adequate and scientific measures for health protection, the State Department of Public Health will give financial and technical assistance to a limited number of counties for this purpose.

The best method for doing health work in a county is through a County Health Department under the direction of a competent full-time medical health officer, with sufficient nursing and other assistants to conduct all phases of practical health work.

COST OF A COUNTY HEALTH DEPARTMENT

For all except the most sparsely populated counties of Illinois the minimum cost of a County Health Department should be \$10,000 per year. In the first few counties adopting this plan the State and outside agencies will pay \$3,000 provided the remaining \$7,000 is furnished by the county. In the more populous counties a larger budget will be needed to secure the best results. In general, it may be stated that an expenditure of from 25c to 50c per capita per annum should furnish a county with reasonably adequate health service. (This does not include hospital expenses, bedside nursing or pauper relief.)

A typical *budget* of \$10,000 is distributed as follows:

Full Time Service	
*Salary medical health officer.....	\$ 3,600
Salary public health nurse.....	1,800
Salary 2nd nurse or inspector.....	1,500
Travel expenses (upkeep 3 cars) @ \$50 per mo.	1,800
Salary office assistant.....	\$600 to 900
Contingent fund	700 to 400
	\$10,000

*Counties are encouraged to pay higher than the minimum salary herein provided, in order to secure a more competent health officer, but for obvious reasons the state can cooperate only on the minimum salary.

In addition to an appropriation of \$7,000, the County will be expected to provide suitable quarters for the health office, preferably in the Court House, and to supply permanent articles of furniture such as desks, chairs, typewriter, etc.

PLAN OF ORGANIZATION

In order to secure State aid the county authorities must appropriate \$7,000 for one year's work and appoint as County Health Officer a competent physician who has the endorsement of the County Medical Society. The health officer must agree to devote his entire time to the duties of his office and not to engage in private practice. Whenever possible, it is desirable to secure a health officer who has had special public health and training or experience.

The health officer is responsible to the county authorities and to the State Director of Public Health for the proper and efficient performance of his duties. The entire personnel of the County Health Department is under the direction of the health officer. The public health nurses, whose qualifications meet the

standards of the State Department of Public Health, are appointed by the health officer, or where a county nursing service paid by public funds already exists it should be placed under his supervision. The nurses will perform such public health nursing duties as are prescribed by the county health officer. Where a sanitary inspector is employed he will perform such sanitary duties as are assigned to him. The office assistant is appointed by the county health officer and will keep all records of the office and do the clerical work. In some places the office assistant may be required to do simple laboratory tests.

It is often desirable in the interest of efficiency to form a combined county and city health department administered by one health officer. Even where local conditions makes such a combination inadvisable, the county health officer will have general advisory authority over all health work in the county. Every county health officer will be required to enforce all state health laws and regulations throughout his jurisdiction.

DUTIES OF A COUNTY HEALTH DEPARTMENT

1—HEALTH EDUCATION

The primary duty of the County Health Department is to educate the people of the county in matters pertaining to the cause and prevention of communicable diseases and the possibilities for community health promotion. This will be accomplished by—

(1) *Public addresses*, using, where desirable, illustrations with lantern slides, charts, models or motion pictures.

(2) *Educational literature* furnished by the State Department of Public Health and other public health agencies dealing with various phases of health conservation.

(3) *News articles* in the press of the county relating to the work of the health department and to general health subjects.

(4) *Public health exhibits* at county and community fairs, public schools, and such other places as may be practicable.

(5) *Other educational methods* of interest and by informing the people as to the importance of health protection.

In the execution of the above, and all other phases of health work, the health officer will enlist the support and cooperation of all available organizations and agencies.

2—CONTROL OF COMMUNICABLE DISEASES

Prompt and efficient measures of disease control will be conducted. These include:

(1) *Reports of cases*, and suspected cases, of notifiable diseases by physicians, school authorities, and heads of households. These may be secured through education, checking of newspaper notices and death records, and investigation of the verbal reports of suspected cases.

(2) *Epidemiological investigations*, to determine the source of disease as a basis for its elimination. Every primary case of smallpox, diphtheria, scarlet fever, typhoid fever, poliomyelitis and cerebrospinal

meningitis should be visited by the health officer in person whenever possible for the purpose mentioned.

(3) *Home visits* by the nurses to give instruction in the prevention of the spread of disease.

(4) *Office records and a spot map* showing the current and past prevalence of communicable diseases.

(5) *Public health laboratory examinations* for the diagnosis of communicable diseases, either by local laboratory facilities or by examinations made at the state public health laboratories. Supplies for collecting laboratory specimens will be kept at the county health office for quick distribution to physicians.

(6) *Consultation with attending physicians* relative to cases of communicable disease, when reported, or whenever there may be difference of opinion as to the diagnosis of communicable disease.

(7) *Free immunizations* for educational and demonstrational purposes for the prevention of smallpox, typhoid fever and diphtheria. A harmonious understanding of this matter should first be had with the local medical profession and the cooperation of its members secured.

(8) *Biologics* which are now distributed free by the State Department of Public Health will be handled as heretofore, but the county health officer will see that these biologics are kept under proper conditions and in sufficient quantities for the needs of the county.

(9) *Veneral Disease Control:*

(a) Educational measures for the promotion of social hygiene will be conducted by all practical and useful methods.

(b) In those communities where the need exists the health department will provide or see to it that treatment is provided for all persons infected with a venereal disease who are unable to pay a private physician, and who are a menace to the public health. Arsphenamine will be furnished without cost to any physician in the county for the treatment of indigent patients.

(c) The standards of the State Department of Public Health in reference to laboratory and clinic methods will be observed.

(10) *Tuberculosis Control:*

(a) An educational campaign will be conducted concerning tuberculosis prevention. This will be done especially in the schools and will include classes, lantern slides, moving pictures, suitable literature on the subject, instruction in personal hygiene, and other effective methods.

(b) Reports will be secured in so far as possible of all persons in the county who are suffering from tuberculosis.

(c) Diagnostic Clinics will be held in cooperation with the local medical profession for the examination of persons with suspicious evidence of tuberculous infection.

(d) Visits will be made by the nurses to the homes where cases of tuberculosis exist, to give the patient and the household such nursing instruction as will enable them to utilize to best advantage the treatment prescribed by their physician, and to advise with them concerning those sanitary precautions necessary for

the prevention of the spread of the disease to others. Efforts will be made to secure sanitarium care, especially for open cases of the disease, and for other cases if facilities for their treatment are available.

(e) Physical examinations of the school children will be made with the view of discovering early cases and of preventing cases by efforts designed to improve child health.

3—CHILD HYGIENE

(1) *Education:* A general educational campaign in regard to various phases of child hygiene will be conducted. This campaign should be carried out by every available means, particularly by visits of the nurses to homes, talks and demonstrations to Mothers' Clubs and other groups of interested people. Particular stress will be given to the importance of prenatal medical care and hygiene, of birth registration, of detecting unlicensed midwives and instructing the licensed ones, of proper nutrition during childhood, and the necessity for correction of physical defects.

(2) *Infant and Pre-School Hygiene:* A regular schedule of well baby conferences will be arranged in various parts of the county, in cooperation with the local physicians. To these conferences mothers will be invited to bring their children for examination and hygienic advice. The nurses will visit the homes to instruct mothers in the details of infant hygiene.

(3) *School Hygiene:* Physical examinations will be made of all school children in the county, except where parents do not desire this service. Parents and school authorities will be notified concerning defects found, in order that the family physician or dentist may be consulted concerning the correction of defects. For those children whose parents are unable to pay for medical treatment in the correction of defects, arrangements should be made through the local medical profession whereby corrective treatment may be secured.

4—SANITATION

Provision of safe public water and milk supplies, and of sanitary methods of excreta and sewage disposal constitute a primary duty of any health department, and concerted efforts to secure these sanitary improvements should precede all other activities except the control of communicable diseases.

Towns: The health department will make a sanitary survey of all towns in the county with particular reference to the source and safety of the water supply, the methods of excreta disposal, the safety of the public milk supplies and the general sanitary conditions of the town. The services of the state sanitary engineer will be available for aiding the health officer in the solution of municipal water and sewage problems. Efforts will be made to have any insanitary conditions corrected by reporting such conditions to the town authorities with recommendations for the enforcement or adoption of necessary laws or ordinances. A special effort will be made by the health officer to secure the installation of sanitary privies at those places where connection with a sewerage system is impracticable.

Schools: In addition to making an annual survey of all schools in the county, the health officer will make a persistent effort to induce the school boards to provide a safe supply of drinking water, sanitary toilets or water closets, adequate light and ventilation, and such other facilities at each school as are required by statute for safeguarding the health of the pupils.

Rural Homes: Improvements in the sanitary condition of privies and water supplies, and adequate screening during the summer, at rural homes, will be encouraged.

Milk and Food Supplies: Sanitary inspections will be made of dairies, milk depots and food establishments and the cooperation of state departments other than that of public health will be solicited for securing enforcement of the minimum requirements of the state laws. The adoption of a model milk ordinance will be attempted if adequate provisions are not already provided.

Public Buildings: Periodic inspection will be made of public buildings and institutions in the county and recommendations made to responsible authorities for correction of any prevailing insanitary conditions.

5—OTHER ACTIVITIES

(1) Such diseases as trachoma or malaria offer special problems in some counties. In others, industrial hygiene problems are presented. In such cases appropriate additions will be made to the general health program.

(2) The efficiency of birth and death registration in the county will be promoted by investigation and cooperation with local registrars.

(3) Where pressure of other duties permits, periodic health examinations will be encouraged.

(4) Whenever the desirability exists for modifying or supplementing the activities outlined herein, approval of the State Department of Public Health should be secured by the health officer.

(5) In many counties, owing to limited funds and personnel, it will be impossible for the county health department to conduct all of the activities herein described during the first year. In such cases the different phases of health work will be taken up in the order of their relative importance.

6—RECORDS AND REPORTS

A record of all activities of the County Health Department will be kept on suitable forms and reports made as required by state regulations. These reports include current reports of communicable diseases to the Illinois Department of Public Health; and monthly and annual financial, statistical and narrative reports to the local authorities and other contributing agencies.

7—SUMMARY

It may be stated that it is the duty of the County Health Department to furnish the maximum of health service possible with available funds to the greatest number of people of the county to the end that human health may be conserved, and the economic welfare of the county promoted.

THOMAS PARRAN, JR., M. D.,
Director, County Health Work,
Illinois Department of Public Health.

Correspondence

UNIVERSITY OF ILLINOIS AGAINST STATE MEDICINE

July 30 we wrote the Dean of the University of Illinois College of Medicine as follows:

We understand that there is to be a reorganization of the faculty of the medical department of the University. As you know, the medical profession of the state is at all times solicitous of the possibility of the medical colleges inaugurating schemes for state medicine. We would like to know if you are contemplating anything along this line in your new plan of reorganization?

The following reply to the above letter was received from the dean of the medical department of the University:

Chicago, Illinois, August 1, 1924.

To the Editor: The reorganization in the College of Medicine of the University of Illinois is not properly a reorganization at all, in that what we are trying to do now is to develop a suitable number of courses in Preventive Medicine. We are going to bring in quite a number of new men and these men will be paid salaries for the joint work of teaching and investigation. Of course, you know we have no pay patients and we do not expect to have pay patients. No one will have private cases in the hospital. The cases will all be charity cases. I can assure you that I am just as much opposed to state medicine as is any other member of the medical profession.

I am going away for a few days' vacation and when I return I shall be very glad to have you call on me and go over the whole proposition in detail. You may have many helpful suggestions to make to me. Will you kindly call me after August 12, telling me when it would be convenient for you to talk over the whole matter with me.

Believe me, most cordially yours,
A. C. EYLESHYMER.

DR. B. L. RAMSAY vs. THE DEPARTMENT OF REGISTRATION AND EDUCATION

In order that every member may become acquainted with the facts of this case we are publishing herewith a communication which is very enlivening.

To the Editor: July 31st, 1924.
On July 15 Judge Charles M. Foell started

hearing arguments on the motion of the attorneys for Austin M. Shelton and the five persons designated by him to take action and make report for medical practitioners in the matter of the proceedings brought by Dr. Blaine L. Ramsay to enjoin the action of the Department of Registration and Education and its trial committee upon the charges filed against him for unprofessional conduct. The proceeding had been referred to a Master in Chancery, who reported to the Judge his findings that the trial committee were unprejudiced and that the said Dr. Blaine L. Ramsay had been given ample time in which to present his defense to the said charges. The Master reported to the Court, however, as his opinion, that the trial committee was not properly constituted under the law because some of them were on the staffs of hospitals, which he held to be medical institutions within the language of the law providing for the trial committee; and on this ground the Master in Chancery recommended to the Court that Dr. Ramsay's application for an injunction should be allowed. It was upon the exceptions filed by us to this conclusion of the Master in Chancery that the argument above referred to was had. The arguments were concluded on the following day.

At once upon the conclusion of the arguments Judge Foell announced his decision, which was in substance as follows: that it was not the intention or the spirit of the law to exclude from membership on the trial board practitioners who were on staffs or connected with hospitals and that the object of the law was to exclude from membership on the committee physicians who were actively connected with medical colleges in the usual understanding of that term.

The contention was also made by the attorneys for Dr. Ramsay that the law which provided for revoking licenses of medical practitioners was unconstitutional for various reasons, among them that its specifications of the grounds for which licenses might be revoked were too general and because no provision was made in the law for enforcing the attendance of such witnesses as the person under charges might want to have heard. The Judge, however, refused to hold the law unconstitutional. The Court thereupon entered an order dismissing the proceedings brought by Dr. Ramsay for want of equity.

To afford the attorneys for Dr. Ramsay an opportunity to appeal the case to the Supreme

Court of Illinois, the Court imposed the condition that no action should be taken in the proceedings now pending against Dr. Ramsay before the trial committee during the appeal to the Supreme Court, provided that Dr. Ramsay's appeal be taken to the October Term of the Supreme Court, which commences on the second Tuesday in October, 1924.

It will be recalled that this bill for an injunction was filed on May 10th, 1923, shortly after counsel for Dr. Ramsay had appeared before the trial committee and announced that he would recommend to his client that he surrender his license to practice medicine filed by the Department of Registration and Education and its trial committee to this bill for an injunction and then the proceeding was referred to Master in Chancery John W. Ellis to hear the evidence to be offered by the respective parties and to report the evidence to the Court together with his conclusions of fact thereon. The proceedings before the Master in Chancery were greatly delayed by a combination of circumstances beyond our control. The attorneys originally representing Dr. Ramsay in the filing of the bill for an injunction entirely withdrew from the case in September of 1923 and there was a considerable delay when while Dr. Ramsay procured new counsel and while they were familiarizing themselves with the case. The proofs in the case were finally closed on November 15th, 1923, but Dr. Ramsay's attorneys delayed filing their briefs until a motion was made by us for peremptory order on them to file them in January, 1924. Then the absence of the Master in Chancery on account of ill health delayed the report in the matter until late in the spring.

Yours very truly,

LEESMAN & ROEMER.

WITHOUT THE DOCTOR THE STAR SPANGLED BANNER WOULD NEVER HAVE BEEN BORN

Rockford, Illinois, July 22, 1924.

To the Editor: I am wondering if, in your History of Medicine, anyone has brought to your attention the thrilling and patriotically allied story that it was through the medium of a good—now sneeringly called—"Country Doctor," that incident and inspiration were created for the thrilling rhyme and words of our national

anthem, "The Star Spangled Banner." Some-time patriotic instructor of G. L. Nevins Post No. 1, G. A. R., Dept. of Illinois, notices of national and some personal items were cherished, with my professional inquisitiveness and acquisition as background. As patriotism means both service as well as sacrifice to the doctor more than to the citizen, it is not strange that an initiative is given in the history and song of "The Revolution in America in 1812-14" by a doctor. While the British were marauding the border colonies of Maryland they also invaded manors and families and demanded shelter and entertainment. In one of these homes lived a Dr. William Beanes. As was consonant with those times, the doctor's home had been raided by British officers and hospitality demanded and given; such courtesies did not seem alien to that period. Often a group of British officers had been so entertained at the doctor's home. A squad of privates invaded the doctor's garden and orchard for plunder and rations and were arrested by the doctor, who, under the custom of the times and region, was also a "Squire," who imprisoned these men in his cellar. After a somewhat lengthy patrol hunt, the soldiers were found; the doctor was arrested and taken before the British Admiral, who dragged the good doctor at midnight aboard the flagship and threatened to hang him from the yard arm. The good people of Upper Marlborough, all of whom were the doctor's friends, were much exercised and set about plans and means to secure the doctor's release and safe return.

Francis Scott Key was a well known and highly esteemed young lawyer by the citizens of the county; he was also a government official as well as a friend of the citizens and beloved of the doctor. He was handsome, courteous and brave; he was to go out to the British fleet, remonstrate and secure the release and return of the doctor. It was a delicate, difficult as well as dangerous mission. It involved a day and night stage coach ride and as many days sailing in search of the British fleet. Key was gone over a fortnight before he was heard from. He saved Doctor Beane's neck on one condition—his little government boat must anchor under the guns of the British fleet and witness the bombardment and looting of Baltimore, for which the British had made elaborate plans. The bombardment of Fort M'Henry below Baltimore, and the result is seared

into memory by every song lover who rises in ecstasy and salutes whenever and wherever "Oh, say can you see?" is sung.

All of the song and all that patriotic and fraternal imagination can frame into picture or words of the doctor and poet "Amid the rockets' red glare," are the love and inspiration of a loyal people for their beloved "Country Doctor." Without the doctor the Star Spangled Banner song would never have been born.

Respectfully,

DANIEL LIGHTY, M. D.

A life buoy now commemorates the writing of our national anthem, "The Star Spangled Banner," in the entrance to Baltimore harbor, marking the place as near as possible where Dr. Beanes and Francis Scott Key lay during the bombardment under the British frigate *Minden*. The buoy is in red, white and blue stripes and is a pretty sight as it rides and bobs on the waves of the harbor.

THE PART PLAYED BY PHYSICIANS IN THE VARIOUS AMERICAN WARS

Chicago, July 10, 1924.

To the Editor:—Inclosed please find my personal check for \$10.00 for the history of Medical Practice in the state of Illinois.

I notice in your prospectus that a chapter is to be devoted to the part physicians have played in both the Civil and the World wars. I think this is a wonderful opportunity to do justice to the physicians for once. I heard S. Weir Mitchell says that a large per cent. of physicians of the country volunteered for service in the Civil war and that a larger per cent. were killed and wounded than among any other class of citizens. I have no doubt this same is true in the World war and statistics to prove this assertion should be brought out by the one who writes that particular chapter.

I am,

Very sincerely yours,

EDWARD H. OCHSNER

The committee on Medical History has thus far been able to collect a great deal of valuable data on physicians in the Revolutionary war, the war of 1812, the Mexican war, the war of the Rebellion, the Indian wars as well as the

Spanish-American war. The part played by Illinois physicians in the World war we will be able to portray in the minutest detail.

FIRST WHITE SETTLER IN WARREN COUNTY WAS A DOCTOR.

Monmouth, Illinois,
July 29, 1924.

To the Editor:—I have discovered that the first white settler in this Warren County was a doctor. I have one of the leading historians of the State of Illinois, Professor L. E. Robinson of Monmouth College trying to get more information relative to this man, Dr. Isaac Gililand. Professor Robinson is the author of one of the best historical works on Abraham Lincoln as well as the author of a large number of other similar works. He has expressed his unusual interest in your work and is very anxious to see it when the work is completed.

I think we will have no trouble in getting several subscribers here in Monmouth outside of the medical profession for the work.

If I can be of any assistance in any way at any time, kindly direct me. With kind personal regards, I am

Yours very truly,

DR. H. M. CAMP,

Secretary, Illinois State Medical Society.

DOCTORS AND THE LEGISLATURE

Galena, Illinois.

To the Editor: May I submit the following plan, which seems to me a simple and effective way, whereby the medical profession of our state could wield a decided influence upon the candidates for the State Legislature in their attitude towards our profession?

I would suggest that a uniform letter something like the one below, be sent, by the secretary of each county medical society in every Representative District, to every candidate for State Senator and Representative in his particular district. This letter to be sent during the campaign.

"Mr. John Doe: Inasmuch as you are a candidate for the office of State Representative in our district the organized Medical Profession of _____ County deems it of paramount im-

portance, not only to the profession itself but to the general public, to know where you stand on the following questions:

1. State Medicine.
2. Federal Aid in Health Matters.
3. Compulsory Health Insurance.
4. Lay Dictation of Medical Practice.
5. Health Centers.
6. Free Clinics at State Expense.

Therefore at the direction of the _____ County Medical Society I am sending you this letter, which, it is hoped you will answer at once in order that we may know what attitude to take relative to supporting your candidacy for this office.

Not receiving an answer to this inquiry we will have to consider you uninterested in these very important questions.

Very truly yours,

THE BLANK COUNTY MEDICAL SOCIETY,

Per....., Secretary."

Let us analyze the effect of this letter on Mr. John Doe. We will say that he is a candidate for Representative in the Twelfth District, consisting of Carroll, Jo Daviess and Stephenson counties. He gets a copy of this letter from the secretary of the Jo Daviess County Medical Society. Reading it he says to himself, "What the h— do they amount to," and throws it in the waste basket. A few days after, or even the same day, he gets the same letter from the secretary of the Stephenson county society. He will read the second letter with a little more thought, and perhaps read it a second time before throwing it in the waste basket. When he gets the same inquiry from the secretary of the Carroll county society he will begin to think "These doctors in my district must mean business. I must look into this and see what it means."

The effect of a series of such letters will at least make him familiarize himself with the questions asked, and he will be all the better prepared to cope with them favorably to the medical profession and the public should he be elected.

A form letter could be gotten out by the Committee on Medical Legislation, printed by the *State Journal* and a sufficient number of copies sent to the secretary of each county medical society in the state, and instructions sent him to mail a copy to each candidate for the State Leg-

islature in his district whose names and addresses could also be sent.

I believe this would be an educational campaign worthy the attention of the officers of our State Society.

FORM LETTER

Mr.,

Dear Sir:—Inasmuch as you are a candidate for the office of State in the Representative District in Illinois the organized medical profession of..... County deems it of paramount importance, not only to the medical profession itself but to the general public to know where you stand on the following questions:

- 1.
2. (Here insert such questions as the
3. Legislative Committee would suggest.)
- 4.

There at the direction of the County Medical Society I am sending you this letter, which, it is hoped you will answer at once in order that we may know what attitude to take relative to your candidacy for this office.

Not receiving an answer to this inquiry we will have to consider you uninterested in these very important questions.

Very truly yours,

THE COUNTY MEDICAL SOCIETY

PER SECRETARY

In case candidates reply to such letters asking for information on the subjects mentioned the secretaries should be able to direct them where such information could be obtained.

A booklet, similar to "Some Facts Worth Knowing," giving such information might be prepared by the State Society for this purpose, and furnished the several county secretaries.

Sincerely yours,

G. W. RICE, M. D.

Barry Bldg.

THE CAUSE OF STAMMERING

Boston, July 24, 1924.

To the Editor: Your letter of July 12, requesting details of the progress and improvements of the specific auxiliary service afforded the practice of medicine by the Boston Stammerers Institute has been received.

The following is for the information of your committee:

When I was appointed Director of the Boston Stammerers' Institute in 1916 no satisfactory

physiological cause of stammering had been offered hence I conducted comparative plethysmographic experiments upon both normal speakers and stammerers at the Harvard University Psychological Laboratory in hopes of finding a conclusive physiological cause of stammering. Through the continued efforts of the editors of "The Journal of the American Medical Association" I was able to locate a trephined stammerer, and the A. A. A. S. paid the expenses incurred in getting this trephined stammerer to come to Cambridge for these experiments. My plethysmographic experiments showed cerebral congestion to be the physiological cause of stammering. Just as normal speakers may be rendered temporarily speechless in intense fright, which is always accompanied by cerebral congestion, so stammerers experience difficulty in speaking during cerebral congestion, however it is brought about. It follows that stammering is not a simple physical defect, but is very intimately connected with the emotional life of the stammerer. In fact, in a small minority of cases, stammering is a symptom of a neurosis and cannot be corrected until an expert psychoanalyst or psychiatrist has removed the neurosis.

As several defective imagery theories of stammering have been advanced in recent years, I conducted a comparative verbal imagery test for stammerers and normal speakers and found that the verbal imagery of stammerers is normal when they are not actually stammering. It is evident, therefore, that stammering is caused by defective verbal imagery or by transient auditory amnesia only as such imagery is temporarily impaired by cerebral congestion.

Other experiments showed that the stammerer's main difficulty lies not with certain consonants as is commonly supposed, but with the vowels.

After obtaining these new and important facts about stammering by means of these comparative experiments I devised breathing exercises which successfully counteract the cerebral congestion brought on by the fear or dread of stammering, and evolved other exercises which successfully transfer the stammerer's attention to the vowels, which he has overlooked.

My work with young children showed that stammering can be corrected within one month from the time it starts if physicians caution parents not to call a child's attention to the

fact that he stammers and take pains always to speak slowly in a quiet, low pitched voice in the child's presence; stammering is seldom outgrown, however, after a child becomes conscious that he stammers, because the ever present feeling that he may stammer frequently brings on cerebral congestion and stammering.

Ten years ago there was no satisfactory physiological explanation for stammering, hence no scientific system of speech training had been devised to offset the cause of stammering. Today a simple and natural system of speech training has been evolved which will teach any stammerer to speak normally providing he applies himself as conscientiously to speech training as he would expect to practice his music lessons in order to become a successful musician. The neurosis cases, which were formerly considered incurable, respond as quickly to treatment as others after a psychiatrist has removed the neurosis.

In short, the Boston Stammerers' Institute has tried in the following ways to help physicians to give the very best advice to their patients:

1. Determined the physiological cause of stammering and evolved a successful system of speech training to counteract this and correct the stammering.

2. Pointed out that the old theory that a child is likely to outgrow stammering holds true only so long as the child remains unconscious that he has an impediment in his speech.

3. Devised preventative measures which will enable parents to correct stammering before the child becomes conscious that he stammers if the family physician is consulted in time.

4. Recommended that nervous stammerers consult a psychiatrist of high standing and recover from any neurosis which they may have before taking any lessons in speech training.

5. Pointed out that a physician should no more be expected to give lessons in speech training per se than singing lessons.

6. Furnished up to date instruction in what is necessarily a long course of lessons in speech training which the average physician could not spare time to give.

Very truly yours,

SAMUEL D. ROLLINS.

COMMENTS—EVERY DAY TOPICS

Where "moonshine" comes from is a secret still.—*Tampa Tribune*.

Hospital statistics suggest that too many put the quart before the hearse.—*Washington Post*.

Dr. Barrett says failure to live to 75 is going to be a crime. Punished with death, too.—*Greenville Picadmont*.

A Chicago business man died in a taxicab. If you have a weak heart, it doesn't do to watch the meter.—*American Lumberman*.

It may be that fruits feel pain, as that Frenchman says, but the grapefruit is the only one that can hit back.—*Newark Ledger*.

Face powder keeps husbands loyal, says advertiser. Some women consider gunpowder more reliable.—*Wall Street Journal*.

It must be comforting to the monkey to learn from the anti-evolutionists that he is now absolved of all responsibility for the human race.—*Asheville Times*.

Prohibition is still in its infancy in America, says one of its advocates. In some parts it certainly seems to be still on the bottle.—*Punch* (London).

THE OLDEST TRADE

A doctor, an architect and a Bolshevik were discussing the priority of their occupations.

The doctor said: "When Adams's side was opened and a rib removed to make woman, there was a surgical operation—medicine was the oldest trade."

The architect: "Yes, but when the earth was made out of a chaos there was the building process, the use of materials according to a plan. The architect's is still older."

The Bolshevik smiled and said: "But who supplied the chaos?"

NO TIME TO SCOLD

A Boston physician who was on a Western trip with his wife wrote home that they would return Monday on the 10 P. M. train. Their two children, aged nine and eleven, wanted to meet them, but received very definite instructions not to do so.

When the parents arrived at 11:30, their train being an hour and a half late, they were surprised to see Ernest and Alice waiting for them on the platform. The mother hurried forward to expostulate, but was cut off by the shrill voice of Alice crying, "Hurry up, Mother! Don't stop to talk. The taxi's up to \$7.60 already."—*Boston Transcript*.

NOT NECESSARILY

Doctor: "You have appendicitis. I must operate."

She: "Oh, doctor, will the scar show?"

Doctor: "No . . . not unless you join the Folies!"—*Medical Life*.

Original Articles

PRACTICAL CONSIDERATIONS OF THE DANGERS ASSOCIATED WITH SURGERY OF THE THYROID*

JOHN deJ. PEMBERTON, M. D.,

Section on Surgery, Mayo Clinic

ROCHESTER, MINNESOTA

In the past it has been customary to group all operative statistics under the general term "goiter operations", which is misleading, in that it does not give an accurate idea of the varying risks associated with the different types of goiter. With regard to the surgical risk, all lesions of the thyroid may be divided into two groups, goiters unassociated with hyperthyroidism, and goiters associated with hyperthyroidism. The operative risks in the two groups are not comparable. In the former the dangers are confined to the accidental causes to which any operation of equal magnitude is subject, while in the latter the greatest danger lies in the disease itself, or the residual effects of the disease. Even a minor operative procedure may induce a hyperthyroid crisis, resulting in death of the patient, whereas a technically formidable operation, such as the removal of a large intrathoracic goiter unassociated with hyperthyroidism, may be followed by no reaction whatever. In order, then, to evaluate accurately statistics on operations for goiter, the proportion of goiters without hyperthyroidism included in the computation must be known.

The removal of goiters unassociated with hyperthyroidism, such as adenomas, colloid, and malignant, is attended by the dangers of operative and postoperative accidents only. With the standardized operation of today, by care in details, hemorrhage, tetany, air embolism, myxedema and infections have been practically eliminated. In the Clinic the incidence of postoperative obstructive dyspnea and pneumonia have been materially decreased, since it has been appreciated that both are at least partially avoidable. In the past the causes of postoperative obstructive dyspnea were believed to be confined to collapse of the trachea and edema of the glottis, both unavoidable complications, but in recent years a clearer recognition of the important part played by the injury of the recurrent laryngeal nerve has led the surgeon to exercise more care

in its avoidance; in consequence, postoperative obstructive dyspnea is rare. Likewise the incidence of postoperative pulmonary infection has been materially reduced by the avoidance of prolonged anesthesia and of injury to the recurrent laryngeal nerve. The operative mortality in this group is less than 0.25 per cent.

The goiters associated with hyperthyroidism include exophthalmic goiter and adenomatous goiter with hyperthyroidism. The added surgical risk in each type of goiter is due to the same two factors, the development of an acute hyperthyroidism, and the presence of visceral degeneration. But there is a decided difference in the operative mortality; that of exophthalmic goiter has been reduced to 1.0 per cent. by case, while that of adenomatous goiter with hyperthyroidism is between 3 and 4 per cent. In order to understand the reason for this difference in the mortality, it is necessary to discuss the two types of goiter separately.

Exophthalmic goiter. In searching for the reasons for the reduction of the surgical mortality rate in cases of exophthalmic goiter, two facts stand out prominently. First, the patient is coming to surgery earlier in the course of the disease, before the occurrence of visceral degenerative changes. This is strikingly illustrated by a comparison of the data for different periods, relative to the duration of hyperthyroidism. In 1909 the average duration of hyperthyroidism in the series of patients with exophthalmic goiter was thirty-one months; in 1916, twenty-three months, and for the first six months of 1922, nineteen months. Thus one of the causes of the relatively high mortality rate of exophthalmic goiter in the past has been partially eliminated by the patient himself. Second, the incidence of acute hyperthyroidism has been reduced by the employment of preventive measures. As the intensity of hyperthyroidism in patients with exophthalmic goiter fluctuates, a period of exacerbation often being followed spontaneously by a period of remission of symptoms, it was early recognized that the operative risk was greatest during certain phases of the cycle, that is, during or near a crisis. Accordingly, it was seen that major operative procedures should be avoided during these phases, and that minor or preliminary procedures, such as ligation of the thyroid arteries and injection of boiling water into the gland, should be substituted. Further, it has

*Read before the Tri-State Medical Association, Des Moines, Iowa, October 29 to November 1, 1923.

been learned that the course of the disease can often be influenced by such nonsurgical measures as rest, adequate supply of food and fluids and administration of iodine. Thus, by the employment of medical and surgical preparatory measures, and by an accurate check on the course of the disease by means of repeated estimations of the metabolic rate, the danger of postoperative reactions has been reduced to a minimum.

To reduce the mortality, in the management of patients with adenomatous goiter with hyperthyroidism, the treatment must be directed along entirely different lines. The cases of this group might be called the "procrastination cases", that is, in most instances the patients do not seek medical relief until the disease has progressed to a stage in which vital structures have been damaged, often beyond repair. We are all familiar with the patient who has had a nodular goiter for many years, but does not seek medical relief, unless by chance the goiter causes choking or marked disfigurement. On an average of fifteen years after the appearance of the goiter, hyperthyroidism develops, but the onset of the symptoms is so mild and insidious that the patient often does not realize any change in her condition, and hence does not seek surgical relief until there has developed evidence of visceral degeneration, with consequent high operative risk and diminished prospect for complete cure. Unlike exophthalmic goiter, the course of the disease is steadily progressive and, unfortunately, is not greatly influenced by preparatory surgical or medical measures. Obviously the operative risk is in direct ratio to the number of bad risk cases accepted for surgery. Therefore, the mode of attack to reduce the mortality and invalidism caused by this disease lies, not in the further development of surgical technic or preparatory measures, but rather in the general education of the public. All nodular goiters should be removed soon after the onset, or the patient should be under periodical observation medically, in order that symptoms of hyperthyroidism may be detected early.

SUMMARY

The factors influencing the reduction of the mortality to 1 per cent. in surgery of exophthalmic goiter are: 1, the patients are coming to operation earlier in the course of the disease, before the development of visceral degenerative

changes; 2, by the combined medical and surgical preparatory management, the development of postoperative acute hyperthyroidism has been reduced to a minimum, and 3, clearer recognition of the dangers involved in the injury of the recurrent laryngeal nerve has led the surgeon to greater care in its avoidance.

There has not been a concurrent reduction in the mortality rate in surgery of adenomatous goiter with hyperthyroidism, owing to certain facts: 1, because of the insidious onset of hyperthyroidism, these patients come to surgery late after the development of visceral degenerative changes when the operative risk is high, and 2, surgical and medical preparatory measures are ineffectual. Obviously, then, to reduce the mortality in this group, it is essential that the patient be operated on early, before the development of degenerative changes. Since often it is impossible for the patient to detect the beginning of hyperthyroidism in himself, we should urge all patients with symptomless nodular goiters who are not under close medical observation, to be operated on early, when the risk is less than one-fourth of 1 per cent.

THE CHANGING ATTITUDE IN THE TREATMENT OF PULMONARY TUBERCULOSIS*

GEORGE THOMAS PALMER, M. D.,

SPRINGFIELD, ILLINOIS

Within the past few years, definite and radical changes have come in the treatment of pulmonary tuberculosis;—changes almost as radical as those of a decade or two ago when empirical drug treatment gave way to hygienic treatment and to the enthusiastic epoch of tuberculins, vaccines and other specific remedies. For the most part, these changes have consisted of eliminations and abandonments of those agencies which, after brief periods of popularity have been proven unreliable and undependable; but there have also been some additions to our means of combating the disease which give promise of standing the test of time. In certain instances there have been radical changes in our opinion as to the relative importance of the already accepted means of cure.

A generation ago, the word "tuberculosis"

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caused automatically to flash through the mind of the physician the therapeutic combination of creosote, cod liver oil, hens' eggs, cow's milk and climate with after-thoughts of serums, vaccines and specific medication. One by one these curative agencies have been cast upon the therapeutic junk-heap or have been assigned to relatively unimportant places to which experience seemed to have entitled them.

The idea that any drug or combination of drugs has a definite curative influence in tuberculosis has been gradually and reluctantly abandoned and with it the routine and indiscriminate use of creosote, cod liver oil and their successors, iodine, calcium and analine dyes. While there is still hope of a remedy of chemical origin, analogous to salvarsan in syphilis, it is recognized that the realization of this hope is now very remote and we are compelled to accept the indisputable fact that there is no drug of sufficient value in tuberculosis to constitute even an important part of its treatment. The innumerable remedies which have been advocated from time to time, always with a certain degree of enthusiasm on the part of a limited number of advocates, bear evidence of the relative worthlessness of them all.

The excessive use of milk and eggs and all other forms of forced feeding have been proven useless if not actually harmful. The consumptive, like the army, must travel on his belly and an infinite number of tuberculous persons have lost their fight through the impairment of digestion through over-feeding.

Climate has been found to be of but limited value and then only in carefully selected cases and tuberculin and autogenous vaccines in the pulmonary form of tuberculosis have fallen into general disrepute.

The reason for the apparent success of scores of remedies and their ultimate abandonment, lies largely in the peculiar temperament or neurasthenic tendency of the tuberculous patient which renders him singularly susceptible to all forms of suggestion. There is no form of treatment, however unreasonable or grotesque which will not result in temporary improvement of the average consumptive if administered with a sufficient degree of impressiveness. For this reason the medical fakir and the patent medicine vendor find tuberculous patients easy and willing prey and for the same reason the conscientious physician is often led into unwarranted confidence

and enthusiasm in the employment of the most recent therapeutic fad. This suggestability of the patient should always be borne in mind in testing out any therapeutic procedure.

The abandonment of all confidence in the treatment of tuberculosis by drugs or by biologic products, brings us back with renewed confidence born of necessity in the so-called "hygienic treatment" of the disease, but even in this, the relative importance of the several features has undergone definite change. A few years ago we should have been inclined to enumerate the elements of hygienic treatment, in order of importance, as out-of-door life, generous diet, medical guidance and rest. Today we are disposed to practically reverse this order. In the presence of even the mildest degree of activity, rest stands out the sovereign remedy compared with which all others are of relative unimportance. I believe that it is not exaggerative to say that rest is of more definite value than out-of-door life, generous feeding, climate, tuberculins, vaccines and all drug therapy combined nor does it appear unwarranted to say that the chief fault in the home and even in the institutional treatment of the disease today is the lack of appreciation on the part of both patient and physician as to what actually constitutes the proper character of rest. If the same kind of rest were given to all tuberculous patients having elevation of temperature that we give to the typhoid patient, the results of our treatment would be infinitely better.

Second in importance I should place intelligent and close medical supervision with the constant guidance of the physician who is fully appreciative of the peculiar therapeutic indications and the unusual temperamental twists of the tuberculous patient;—a medical supervision in every detail to the patient's life and including a continuous course of education and of unrelenting discipline tending to establish the most rigid form of self-discipline and self-control. The tuberculous patient requires as close and constant medical supervision as does the surgical patient and through our failure to accord him this, through our lack of understanding and our lack of interest, the medical profession is largely responsible for the migration of the consumptive to the chiropractor, the osteopath or the vendor of patent medicines.

While out-of-door life is still of the utmost importance in the treatment of the early and

moderately advanced patient, there is no question but that it has been discredited through its abuse or its injudicious employment. The relegation of the advanced consumptive to the hardships of out-of-door life during cold and inclement weather has been as ill-advised as it has been cruel and inhumane. The advanced tuberculous patient or one suffering from acute complications of the disease requires definite hospital provisions and distinct hospital care in which proper ventilation is essential; but in which out-of-door life becomes of secondary importance. God help the man who ever suggested tents for the housing of consumptives. Cold in the winter, hot in the summer, wet and steaming after a rain, tents are entirely unsuited for the housing of any sick person regardless of the character of his disease. Incidentally, even for the moderately advanced patient, out-of-door life requires special knowledge on the part of physician, nurse and patient which is in no sense intuitive.

So far my remarks appear to be entirely destructive. With but slight confidence in climate; with no confidence whatever in the innumerable drugs which have been advocated as specifically affecting the disease; with a faith in tuberculin and vaccines which has decreased to the vanishing point through years of painstaking and unprejudiced employment; with no dependence upon forced feeding and the excessive use of milk and eggs; with profound conviction that even out-of-door life, if employed injudiciously may result in harm rather than good, I may appear to rank with the pessimist and the therapeutic nihilist. As a matter of fact, I find, in almost any group of physicians, that I am exceptionally sanguine and optimistic as to the successful treatment of tuberculous disease.

Rest, if absolute in character and continued over a sufficiently long period of time, will give results that have but begun to be appreciated by the rank and file of the medical profession. Education, thorough, rational and continuous, is one of our most important and most neglected means of cure. This is perhaps best acquired in the properly conducted sanatorium which, to attain its greatest goal, should be more of a school than a hospital; but education and rigid discipline may be carried out more or less satisfactorily by the family physician who has sufficient interest and sufficient confidence to maintain at least weekly contact with his patient and who is willing to

devote hours to the educational needs of the individual, not over weeks; but over months and years.

Out-of-door life under proper conditions and proper supervisions; intelligent feeding which avoids over-stuffing and which considers the consumptive rather than calories; the administration of drugs and medicines to meet definite indications, but never as a matter of routine or in the vain hope of affecting the tuberculous disease *per se*; the creation of a rational temperamental environment which will afford mental as well as physical rest;—these things all have their values which have stood the test of time.

These relatively simple procedures, which, in spite of their simplicity are apparently exceedingly difficult to carry out, constitute the treatment of tuberculosis which is now accepted and which, in the main, will give reasonably satisfactory results.

If I were asked to summarize most briefly the important point in our changing attitude toward the treatment of tuberculosis, I should unhesitatingly say: "The increasing appreciation of the value of rest" and it is this increasing appreciation that has led to the most radical changes during the past few years.

Following a surgical principle which is as old as surgery, the modern conception of the treatment of pulmonary tuberculosis consists in keeping the ulcerated and inflamed areas of the lung at as near complete rest as possible until they have had an opportunity to heal. This requires not only the recumbent position of the patient; but freedom from worry, grief, anxiety or any other emotional or disturbing factor which will tend to increase the respiratory excursion. Laughter, singing, talking or deep breathing may entirely defeat our purposes.

In addition to the position and environment of the patient, much may be done to attain localized rest of the lung. Norman Bridge, a number of years ago, pointed out that the intelligent patient can materially reduce the number of respiratory excursions by conscious effort. Webb advises his patients to lie on the affected side supported by a sand-bag. Knopf is now advocating an ingenious drilling of the patient in moderation of breathing whereby the respirations are reduced to ten or even six per minute over long periods of time.

More complete rest of the lung may be at-

tained by artificial pneumothorax which, after many years of varying popularity and discredit, has come to be regarded as a standard part of the treatment of pulmonary tuberculosis, properly applicable to perhaps six or eight per cent. of cases.

Beyond artificial pneumothorax and in the newly developed field of chest surgery lies a great, slightly explored domain which gives new hope to the advanced consumptive. In fact, in the light of our present knowledge, it is unjustifiable to relegate any advanced consumptive to the ranks of the incurable without serious study as to the possibility of surgical intervention.

In many cases, in which there is rapid softening and in which the outcome appears quite hopeless,—especially when artificial pneumothorax is rendered impossible by pleural adhesions,—there is reason to expect more than fair results through extra-pleural thoracoplasty or the multiple resection of the ribs. The operation is radical and the surgical risk is considerable; but it will be borne in mind that, without operation, the outlook for the patient is hopeless and that all recoveries are to be regarded as a net gain.

With our present realization that the thorax may be safely explored by the surgeon, guided by the internist who has made a study of thoracic conditions and thoracic pressures, chest surgery gives promise of a new era in the treatment of certain otherwise hopeless cases.

After a long and benighted period of empirical treatment; after fruitless dependence upon drugs and vain hopes of tuberculins and bacterial specifics; after a futile search for the climate which will have a real curative effect on tuberculosis; we are now at a point where a few things are of proven value and merit. Of these, the most important are the building up of the patient by proper environment and intelligent care; the education of the patient as to his own methods of living and rigid discipline for the purpose of developing self-discipline and rest for the individual and rest for the lung to be attained by recumbent position over long periods of time, an utterly uneventful and unemotional life, by training in the control of breathing and, finally, by surgical interference.

DISCUSSION

Dr. Don Deal, Springfield, opening the discussion, said:

I just want to emphasize a few points which Dr.

Palmer made. First, I feel that no general surgeon should operate on a chest for tubercular conditions without having the indications clearly pointed out by some man who had made a special study of chest work.

In the second place, I feel there are hundreds of cases in Illinois who are dying annually of tuberculosis which could be relieved by surgery. I think in a lot of sanitariums there are many, not gone over thoroughly, not classified as to type, which can be relieved by surgery. They are simply sent there to get them away from the family, which is good in that it protects the rest of the family, but many of them, if they had a careful diagnosis, could be relieved by various surgical procedures, and returned as useful citizens. Almost every cavity is a surgical case.

It just happens that one of our cases is here today. He came in for his regular follow-up examination. This young man has been an invalid for more than five years. For eighteen months preceding the operation he had been in bed. He ran a high temperature, had loss of appetite and experienced many hemorrhages. In January of this year we did an extra-pleural-thoracoplasty.

(A young man, stripped to the waist, was exhibited to the audience.)

He has gained fifteen pounds in weight, his temperature and pulse are normal and he is about daily. His general condition is wonderfully improved. I want you to notice there is no drooping of the shoulder. The man has no loss of function. He is not deformed. We feel it is not necessary to remove as many ribs or to as great an extent as formerly thought. We remove from the first rib down to the sixth, getting an inch of the first rib and then widening out as we go down through the sixth rib, where six inches was removed. Note the lower part of the chest expanded and the upper depressed to a marked degree. We used a sand bag after the operation. I feel that he will contract a lot yet. This was considered a hopeless case when he was first seen.

In our experience with a number of other cases I am sure that chances are lost in many instances on account of lack of diagnosis as to the exact chest condition.

I also want to mention that fat is transplanted into the space between parietal pleura and ribs if more compression is needed. We do not advise extra-pleural-thoracoplasty when it is possible to do a pneumothorax, but when the operation is performed the results are better, I feel certain.

Dr. P. S. Winner, Chicago, asked whether the lesion in the operation case shown or presented here was unilateral or not.

I want to compliment Dr. Palmer on his excellent paper. I think he covered the important points in the treatment of tuberculosis. I might say that I tried controlled diaphragmatic breathing as advocated by Dr. Knopff in ten cases. The patients were able to reduce their respiratory movements from six to eight per minute. On another porch I kept ten cases on the usual sanatorium treatment. I failed to find any material difference in the two groups of cases after a

five months' period. At the Municipal Tuberculosis Sanitarium, of which institution I have charge, we insist upon a great deal of rest for our patients. We have routine rest periods from 8 to 10 in the morning and 1 to 3 in the afternoon daily whether the patients run a temperature or not. The temperature cases are of course on absolute rest. I am glad that Dr. Palmer has emphasized that rest is essential in the treatment of tuberculosis. As to feeding of patients, I think that this is a question that is still open for discussion. I believe that it depends upon the individual case. Some will stand overfeeding while others will not. A great part in the treatment of tuberculosis is the confidence that the patient has in his physician. We find that when a patient comes under the care of a new physician or a new remedy is tried on him, he will show improvement for a short time attributing this to either the physician or the remedy. Most often it is due to the faith in the new remedy that is given to him. We know that the tuberculous patient is easily swayed by the quack who promises a cure. Our records of arrested and quiescent cases at the Municipal Tuberculosis Sanitarium compare very favorably with those shown by western sanatoria.

Dr. C. B. Johnson, Champaign: The burden of Dr. Palmer's paper was centered in the claim that rest is one of the major needs in the treatment of tuberculosis. Indeed, as I understood him, he said in effect that a patient with a diseased lung was in crying need of rest no less than was the typhoid patient with his ulcerated intestine.

Should this radical rest idea come into general use it would revolutionize the treatment of tuberculosis in the fact that it would virtually hospitalize all the patients whom we have been led to believe should have outdoor or open-air treatment. It is certainly a long road from this, in effect, hospital treatment of tuberculosis to the tent-colony management of some years since.

For some time I have had in mind to prepare a paper under the title "The Medical Pendulum," and should I ever do this Dr. Palmer's paper to which we have just listened will afford me some material. During the fifty-six years since I began practice I have seen many things set up to be a little later kicked over, if I may so speak. Likewise I have seen the medical pendulum swing back and forth a number of times.

Dr. Franklin, Chandlerville, said:

I would like to ask whether or not it is propaganda, the advertisements that we see and that we still have so many tuberculosis sanitariums in the West, in the mountains. I visited quite a number of them in Colorado and New Mexico, and I still find those places filled with patients from the Middle West and the East. I found many patients, wives and daughters of doctors from Chicago, from New York and other places of the Middle West and the East, in these sanitariums. If climate is of no effect why do these people send their patients into the mountains?

With regard to rest, it is absolutely essential. They have there their places of rest, not the word in its usual significance, but by that they mean absolute rest, a perfect regime of life for the twenty-four hours consecutively, day after day.

But beyond and with all of that we know in the West that there is a certain definite distinction in breathing, between that climate and here. Even you who are well, when you are there, will notice you have to breathe deeply. There is less residual air in the lungs of those in the West than there is with us here. Here we do not notice that we are breathing. There when you climb the mountains you will know you have to breathe. You use more lung capacity. You use more space, hence less residual air. The patients who are there, naturally will breathe more deeply. They utilize lung tissues that are not used in the climate here.

In rest the number of respirations possibly is not so great as in the active stage. A few deep inhalations during the period of a minute, we will say, is possibly better than a number of rapid respirations. I have talked with the heads of the institutions there and they state it is beneficial in getting results. I am not a statistician, I don't know whether such is the case, but many of them tell me there the number of recoveries among the patients is much better than it is here and further East.

DR. GEORGE THOMAS PALMER, Springfield, closing the discussion, said: I want to make it perfectly clear that my remarks this morning are based entirely upon my personal experience. There are a great many mooted questions in regard to the treatment of tuberculosis. The question of climate is by no means definitely settled in the minds of medical men. Aside from the advantages of good weather, I am inclined to feel that the curative claims of climate are very similar to the claims of the therapeutic value of mineral springs, which once occupied much space in our old medical text-books.

In considering the claims of climate, we must bear in mind that there is a distinct commercial advantage to the western resorts in enticing tuberculous patients there. It is to be noted that the chambers of commerce of the western country repeatedly advise us against sending poor patients to their community, but recommend climatic treatment for patients who are provided with ample funds.

Dr. Bullock of Silver City, New Mexico, who is very enthusiastic about climate, states that patients who undergo sanatorium rest cure in the southwest have a ten per cent. better chance of recovery than if treated under the same conditions in the middle west. He adds that the man who recovers in the southwest and returns to the middle west has about a ten per cent. greater chance of reactivation than if he remained in the southwest. Climate is one of the subjects upon which we cannot fully agree at the present time, but concerning which medical opinion is steadily and definitely changing. I agree with Dr. Franken that there

are many places in the southwest where they have excellent weather. In my opinion, weather is the chief element of climate so far as tuberculosis is concerned.

As to the question of rest there can be no difference of opinion. I want to bring home to you today the fact that the one big element in the treatment of tuberculosis is the application of rest and the application of rest early enough, long enough and complete enough. I feel that our great mistake in the past has been in our temporizing with climate, drugs, and other dependable agencies before adopting the complete rest essential to recovery.

THE LIFE HISTORY OF BRAIN TUMORS WITH OBSERVATIONS AS TO LOCAL- IZATION AND TREATMENT*

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The extraordinary variation as to the time at which symptoms of brain tumor first appear with relation to the beginning of the tumor growth cannot help but attract the attention of the student. I was wont at one time to be intolerant of the delay preceding operation but as one's experience grows richer, one becomes more tolerant, recognizing the difficulty, if not the impossibility in some cases of establishing a diagnosis in the incipient stage. To be sure mistakes may be made, symptoms falsely interpreted and unwarranted delay counselled, but now-a-days this is the exception rather than the rule.

Two decades ago it was almost a prevailing practice to look upon the patient as a luetic suspect until he was proven innocent. A presumptive diagnosis of gumma was made, for months if not years iodides and mercury were given *ad nauseam*. Leaving out of consideration the introduction of serological tests, one's experience alone should condemn this practice. In all the explorations I have made in these twenty odd years, I have to my knowledge exposed but once a gumma of the brain.

But the "expectant" treatment still finds an occasional advocate as the following history bears witness:

This patient (File No. 69005), finally operated upon in 1922, had in July, 1916, a sudden violent pain in his right arm with twitching, both of the right arm and face, but without loss of consciousness; this was his initial symptom almost six years before his tumor was removed.

He was unable either to walk or to talk for two days but very soon afterwards he completely recovered. And then for two whole years he was symptom free. Note this extraordinary interval of perfect health in a tumor involving the motor cortex. Now came his second attack, similar in a way to the first, with cramps and twitchings in the muscles of the arm, extremely painful, but with no speech defect. Since this second attack four years ago he has had no end of convulsive seizures, at first every two months, but soon with increasing frequency, and as in the first instance, accompanied with great pain, and finally after an illness of six years, we found him with total paralysis of the right arm and subtotal of the right leg. Throughout these six

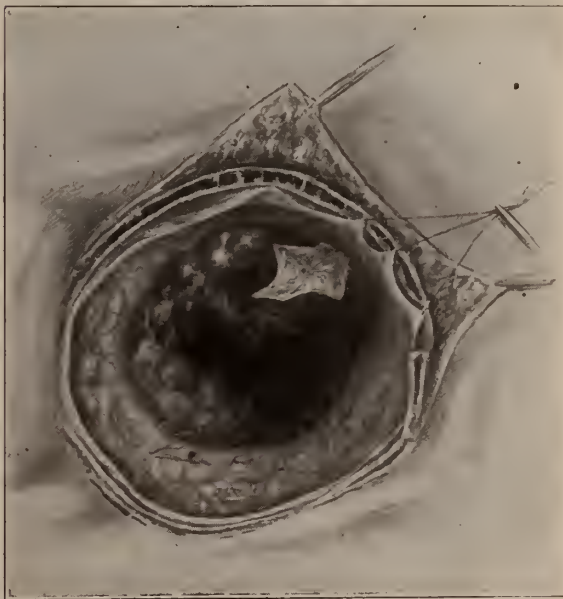


Figure 1. Illustration taken from a water color made at the time of operation showing an encapsulated endothelioma before its removal from the brain.

years serological reactions were always negative; yet the suspicion of lues was clung to and one course after another of specific treatment was administered not excluding intraspinal therapy. The physical examination is of no moment. For the diagnosis and the localization the history was all sufficient.

At the operation an endothelioma was uncovered 7 x 4.5 x 3.5 cm. taking its origin as so many of the endotheliomata do from the falx. (Figure 1.) Its removal was unattended with any difficulty and the patient recovered but of course has never regained the power in his arm or but

*Read before the Tristate Medical Society, Des Moines, Iowa, October 31, 1923.

little of his leg. It was the intense pain of the convulsion that really precipitated the surgical consultation. The lesson we learn from this is obvious. Given a succession of definitely focal convulsions, without evidence of trauma, associated at first with transitory weakness of limb, a presumptive diagnosis of tumor is absolutely justifiable.

In striking contrast to the life history of this tumor with symptoms of many years' duration, let me rehearse briefly the record of a patient (File No. 1369 N. S.) who in his fifty-seventh year was perfectly well until twenty-four days before his admission to the University Hospital. To be quite accurate, on the twenty-second of February he bumped his head against a piece of

a large infiltrating glioma involving almost the entire right occipital lobe. (See Figure 2.) How long the tumor had been present is, of course, a matter of speculation, possibly a year or more, since it is well known that tumors occupying so-called silent areas of the brain may for a long while give no evidence of their existence. In this case again we have an example of the rapid recovery of motor function in the presence of a tumor.

I suppose it may be said without fear of contradiction that failure of vision, headache and convulsions are respectively the three most common individual, initiative signs of brain tumor, and I think of the three, visual disturbance of one kind or another is far the most frequent, even excluding primary pituitary lesions.

The patient to whom I am going to refer (File No. 1490 N. S.) had passed the physical examination of a recruiting officer in 1918, but in 1919 his eyes ached if he read much and at night he could not read at all. In January of 1920 his oculist told him his visual disturbance was due to muscle weakness, but in March at a re-examination *retinal hemorrhages were found in each eye*. This was in March, 1920, two years and eight months before he came under my observation. A Wassermann examination was reported delayed negative, but he was given several treatments of nearsphenamin. Later on in the year 1920 a careful eye examination, so I was told, showed there were five diopters of swelling in each disc and a high degree of optic atrophy. This is so common a coincidence; a suspicious or positive Wassermann reaction and a papilloedema with secondary optic atrophy. In the presence of a high grade choked disc with advancing optic atrophy, we should not be influenced unduly by the serological tests. We should look upon the case as a tumor suspect and proceed on that basis until the evidence is convincing either pro or con.

Now to resume the history: In May, 1921, still 18 months before he came to the hospital, in a few hours his vision suddenly failed and not until then was he decompressed.

While under such circumstances one's first thought might be a decompression, I should like to direct your attention to the value of magnesium sulphate as a substitute for decompression in the relief of pressure. You will find it will relieve headache, will lessen the papilloedema,



Figure 2. Photograph of an extensive glioma involving all of the occipital lobe of a brain removed from a patient the duration of whose illness at the time of our first observation was only twenty-two days. The patient's condition did not permit operation at that time.

furniture and two days later the same accident occurred. After this he noticed that every time he attempted to walk about he would bump into objects. On the sixth of March he took to his bed because of a constant severe headache and on the tenth of the month he developed weakness in the left arm and leg, and some speech defect. Thus, within twenty-two days of the first symptom the patient was hemiplegic with visual and speech defects. Our examination noted in brief a left hemiparesis, a left homonymous hemianopsia, faulty memory, a tendency to jocosity. There were no signs of intracranial pressure. Within ten days he had recovered to a large extent power in his arm and leg, his mental condition had improved and he was soon able to be up and about but the hemianopsia persisted. The patient had

and even will control those attacks of respiratory failure which so often prove fatal. The introduction of magnesium sulphate for the relief of intracranial pressure both on and off the operating table is one of the most important contributions to the therapeutics of brain tumor pathology of recent times.

[NOTE. My assistant, Dr. Tempel Fay, has already published (*Journal of the A. M. A.*, May 19, 1923) the results of his observations.]

During the convalescent period there were added to the picture polyuria, anosmia and marked mental deterioration. A ventriculogram was then made and while not convincing it suggested a tumor of the anterior fossa. The anterior horn appeared displaced backwards and

whenever there is no reasonable clue as to the location of the growth. (Figure 4.) That there are attendant risks our experience testifies to but the risk is not so great as that of an exploratory operation and the patient may be saved the discomforts attending an unsuccessful attempt to find the tumor in this way. That the ventriculo-

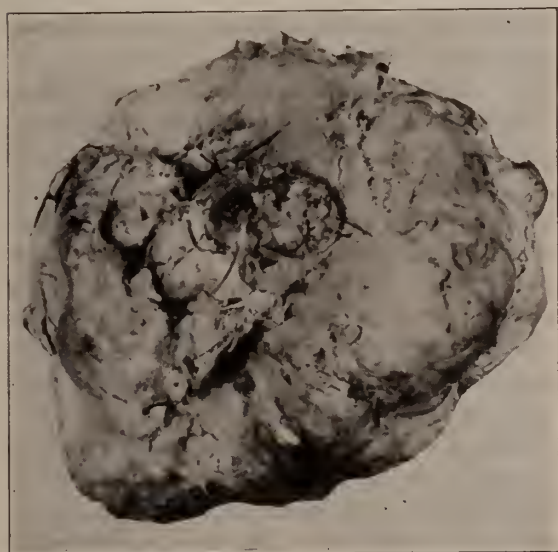


Figure 3. Photograph of endothelioma taking its origin from the falx and removed at operation. Tumor measured 8 x 8 x 5 cm. and weighed 195 grams.

to either side. A right transfrontal exploration was made, and testing with our electrode for variations in resistance the tumor was located 3 cm. beneath the cortex of the frontal lobe. Through a transcortical incision an enormous encapsulated growth was found and removed. The tumor measured 8 x 8 x 5 cm. and weighed 195 grams. (Figure 3.) It was removed with little difficulty and comparatively little bleeding. The patient was out of bed in ten days.

How early in the development of the tumor it would have been large enough to cause distortion of the ventricles one can only surmise. The ventriculogram is helpful in a certain percentage of cases and in my clinic it is employed

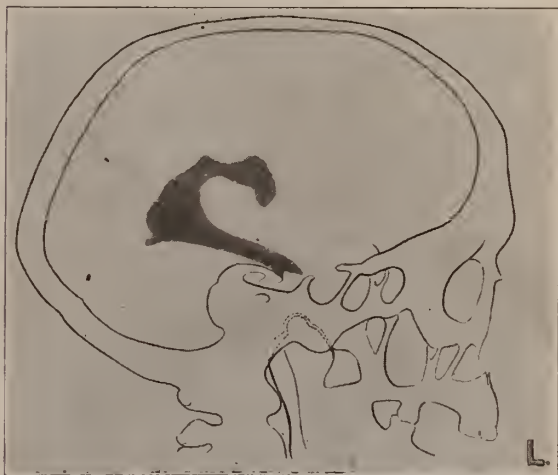


Figure 4. Schematic drawing of a ventriculogram in a patient with an otherwise unlocalizable lesion. Note the obliteration of the anterior horn of the ventricle caused by a frontal lobe tumor.

gram should be used routinely in all cases of tumor no one, of course, would advocate.

I have told the story of this patient's illness at some length because it is replete with interesting and instructive episodes, and I would like especially to call attention to the parietal lobe symptoms, the sense of numbness in the right extremities. Within the year we have had three cases of suprasellar growths with unilateral sensory symptoms. The lesson to be learned is this: we must not be misled by late manifestations of brain tumor since as the tumor grows it may cause pressure in regions distant from its point of origin.

Obviously there must be many variations in the chronology of brain tumors. If we were able to make any grouping of our cases, that is without relation to their clinical history, we might recognize at least two groups: one in which the initial sign indicates increased intracranial pressure; the other in which the initial sign was a focal symptom and the signs of intracranial pressure, if attendant at any time, were later manifestations. In the first group are the tumors mostly deep-seated, in the latter cortical growths. The majority of brain tumor cases, as

we see them in an active neurosurgical clinic, belong to the first of these two groups, and if disturbance of vision is the most common initial sign of increased intracranial pressure, headache with or without vomiting, is the second. So often do the histories run as this one. For three years the patient (File No. 810 N. S.) had had headaches at first infrequent, but almost always in the morning. They were very severe, throbbing in character and referred to the right occipital region. A year later, still as part of his pressure syndrome, he found concentration difficult and had to give up his work. Then the localizing picture of a tumor gradually unfolded



Figure 5. Illustration of drawing made during the course of an operation after the tumor had been exposed but not removed. The tumor, complete encapsulated, 4 x 5 cm. in diameter, was readily removed.

itself; beginning eighteen months after the onset of the disease there was a left hemiparesis, a left hemihypesthesia and a left homonymous hemianopsia, so that the story reads

3 years: headaches, occipital, and throbbing.

2 years: difficulty in concentration,

1½ years; hemiparesis and hemianesthesia,

1 year; hemianopsia.

A presumptive diagnosis was made of tumor in the region of the right optic thalamus and at the operation 4 cm. below the surface a tumor completely encapsulated, 4 to 5 cm. in diameter was uncovered, readily isolated and removed. (Figure 5.) Oftentimes, as in this case, one

may before the operation be reasonably sure which hemisphere and which lobe is involved. At the operation the tumor does not appear on the cortex and one must consider first the propriety of and secondly the exact placing of the incision through the brain cortex. Deep-seated explorations, free incisions into the brain substance are not without their risk. During the past year I have added to my operating room equipment an instrument which measures resistance to an electrical current. Tissues of different character offer more or less resistance and it has been found that brain tissue offers more, usually twice as much, as tumor tissue. (My assistant, Dr. Grant, has already in press a detailed report of our experience with this instrument.) We have found in this instrument a tremendously valuable accession to our armamentarium.

For example, I was dealing with one of those vague brain cases with the pressure triad, headache, vomiting and choked disc, but without very assuring focal signs. We suspected for reasons that I need not go into now that the tumor involved the right frontal lobe. When this region was uncovered, there was no evidence of tumor on the cortex; the intracranial tension was tremendous. Our special electrode was introduced slowly through the right frontal lobe and the resistance, measured in ohms, dropped at a given point from 500 to 200. Through a transcortical incision 4 cm. deep the tumor was uncovered. While further observations must be made to determine the possibilities of error in interpretation, I believe the use of this instrument will increase the percentage of tumors found at operation manifold. (Table I.) Its addition to our

TABLE I.

Case	CLINICAL RESULTS Type of tumor	RESISTANCE	
		Normal brain	Tumor
No. 1	Glioma frontal lobe.....	550 ohms....	200 ohms
No. 2	Glioma motor cortex.....	525 ohms....	250 ohms
No. 3	Glioma frontal lobe.....	900 ohms....	400 ohms (needle B)
No. 4	Glioma temporal lobe.....	500-600 ohms.	250 ohms
No. 5	Glioma occipital lobe.....	550 ohms....	250 ohms
No. 6	Sarcoma temporal lobe.....	550 ohms....	250 ohms
No. 7	Endothelioma frontal lobe..	550 ohms....	750-809 ohms
No. 8	Endothelioma frontal lobe..	550 ohms....	250 ohms
No. 9	Meningeoma frontal lobe..	550 ohms....	350 ohms
No. 10	Endothelioma frontal lobe..	550 ohms....	300 ohms
No. 11	Endothelioma-sarcoma parietal lobe	550 ohms....	250-300 ohms
No. 12	Endothelioma motor cortex.	850 ohms....	1600 ohms (needle B)

Observations made on a series of cases in the Neurosurgical Clinic noting difference in resistance between tumor and normal brain tissue. (Courtesy of Dr. F. C. Grant.)

methods of localization marks an epoch in the surgery of brain tumors quite exceeding in practical importance the ventriculogram.

As in the majority of cases, some sign of increased intracranial pressure, as headache or disturbed vision, is the first signal of brain tumor, conversely in the minority the first warning is a symptom of focal significance. The latter group represent as a rule the more favorable cases to deal with because the diagnosis and localization from the first is obvious. You are familiar with the clinical history of those cases of which the following is an example: The patient had on one or two occasions fleeting attacks of aphasia, or as she said, she lost her voice for a minute or so. She spoke of it in an amused way to her father, a physician, who dismissed it as being probably hysterical. Almost a year later she had two or three attacks which were characterized by a feeling of loss of voice, twitching of the right arm and the muscles at the right angle of the mouth. Then after the lapse of a month she had a succession of attacks, one or two weeks apart, lasting one to three minutes, and as before with twitching of the right arm and muscles of the mouth, which was drawn to the right. The aura in each case was what she described as a loss of voice. The physical examination is no moment; there were no signs of increased intracranial pressure and no loss of muscular power. What has been said suffices for our purpose as illustrating the brain tumor history in which focal symptoms are the initial sign of the lesion, and as a matter of fact though fifteen months had elapsed before the operation there were no symptoms other than the convulsive seizures. Upon those alone a diagnosis of tumor was presumed and operation advised. The left motor zone and region of Broca was exposed and there presented just above Broca's region an area not a centimeter in diameter which differed in appearance from that of a normal brain. The precise nature of it was at first not appreciated but closer inspection proved it to be a tumor readily enucleable and exceptionally small, measuring not more than 3 cm. in its largest diameter. And from this case let us draw the lesson too often forgotten that we must not wait for the signs of intracranial pressure to develop to confirm a diagnosis of tumor.

Convulsive seizures in many instances, approximately 10 per cent., sound the first alarm in the life history of brain tumors and the character of the first convulsion often indicates the starting point of the growth, that is its relation

to the cortex. If as in the case I have just recited the convulsions are Jacksonian, it is strong presumptive evidence that the tumor involves the cortex and vice versa, if the convulsion is general in character with loss of consciousness, we forecast usually a tumor of deeper origin. In this connection I might venture to remind you of the possibility of mistaking the convulsive seizures of tumor for essential epilepsy, more especially if the signs of increased intracranial pressure are at first not forthcoming.

A rather remarkable instance of this was brought to my attention four years ago in the case of a patient who for ten years had been regarded as an epileptic. (Figure 6.) It was only because of the onset of pressure signs that

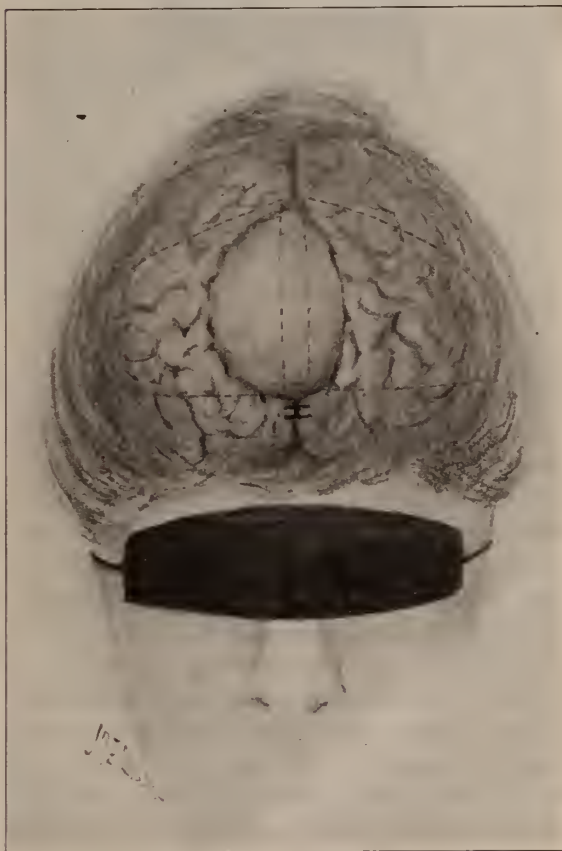


Figure 6. Schematic reproduction of a tumor with a history span of 15 years. Under radium therapy convulsions ceased and the patient has been practically symptom free.

she was regarded as a tumor suspect. The span in this tumor history is the longest of any that has been observed in my clinic. If the Jacksonian seizures were attributable to the tumor and of this there is no reasonable doubt, fourteen

years elapsed since the onset of the symptoms and as its growth may have antedated the seizures at least one year, possibly longer, this patient has survived a tumor of large dimensions at least fifteen years.

These histories are representative of the larger presson. Many will be tumors of the base occa- at first, later on there develop some signs that



Figure 7. Drawing reproduced from ventriculogram showing distension of lateral and third ventricles.

point to the location of the growth. But there will always be a number in which until the last definite localization seems impossible. Some of these will be found in the right temporal lobe, discovered by accident in the course of a decompression. Many will be tumors of the base occasionally in the third or fourth ventricle or suprasellar. The history will read something like this, quoting from one of our records: For two years the child has had headaches and nervous spells and vomits occasionally. Soon the sight became impaired and he had gained 15 pounds in weight. Later he developed a polyuria and diplopia. At first thought one suspects a pituitary lesion but the x-ray findings gave no evidence of it. The ventriculogram demonstrates distension of the lateral and third ventricles. (Fig. 7.) In the eye grounds we find a secondary optic atrophy and a contraction of the visual fields. One may venture to explore the base through a transfrontal approach but fail to find the growth. All efforts at localization are without avail.

But as time goes on we are exposing a larger percentage of tumors on the operating table.

Looking over the last 25 cases of brain tumor in my clinic, I find that in 20 localization was correct and the tumor was found at operation. Both as to diagnosis and localization, a faithfully recorded history, omitting no details, is in many instances an invaluable guide. And as the proportion of operable growths is increasing so is the percentage of growths that can be removed. As we have seen, brain tumors are slow growing affairs, for the most part, and because of failure to find the growth at one sitting the case should not be abandoned. A decompression either temporal or suboccipital will tide over the emergency and, at a later exploration the tumor may be found and removed.

This commonplace recital of the histories of brain tumors is not without purpose. There is much to be learned from an accurate chronicle of events and often the early symptoms have not been recognized as having important significance. (Figure 8.) Granting exceptions, the history of brain tumors can readily be distinguished from



Figure 8. Photograph of an enchondroma removed from a patient whose symptoms in the early stages were more than suggestive of tumor and yet the patient had been treated for hysteria.

other organic lesions and especially from huetic lesions. As a rule there is little ground for confusion, none commensurate with the delay in diagnosis so often permitted. The symptoms are more clear cut and point with greater precision and with less uncertainty to an organic lesion, more or less circumscribed. The life history of

brain tumors covers a longer span of years than is commonly appreciated. Three, four and five years is not unusual and with the endotheliomata of course there may be a still longer period.

As in recent years the incidence of accurately localized tumors has increased measurably, conversely the number of decompression operations has decreased proportionately. As a matter of fact, while not only a few years ago the subtemporal decompression was not infrequently practiced, today it is a rare occurrence. This conspicuous change in practice of late years speaks forcibly for the advance that has been made in the interpretation of clinical records and clinical signs.

3600 Walnut Street.

THE CAMPAIGN FOR LAY-EDUCATION*

JAMES H. HUTTON, M. D.,
CHICAGO

The Illinois State Medical Society has called its new movement "The Campaign for Lay-Education." It hopes to do two things: First, to find out what the public in Illinois thinks of doctors, legislative measures touching the practice of medicine and other measures concerning health; second, to acquaint the public with our attitude on the same questions and our reasons for that attitude. We believe the interests of the public and the profession are identical. And the doctors in Illinois are working for a common end with organized labor, with the employers of labor, with the men who make and execute our laws and the women who rule our homes and philanthropies.

No one of us here tonight would, I think, consider that social or economic order endurable which did not provide opportunity for a competent man to make money enough from the practice of his trade or profession to live decently and normally—to have some chance at personal achievement by reason of the skill or energy put into that job—and to feel that the work he did was on a solid foundation in that it contributed to the welfare of others as well as himself.

The men of mark in the medical profession have been those who have halted disease. The man who could prevent a plague has been hailed as greater than the man who could cure it. It has been said that ours is the only profession in the world which rewards those of its members

who by their discoveries cut off part of the income of the others. For example the men who discovered how to prevent typhoid, malaria, yellow fever, and smallpox are accorded the highest honors by the profession. For that reason we have sometimes resented the fact that the public has not generally understood this attitude and has sometimes seemed to work at cross purposes with us—hedging about our treatment of patients with restrictions more well meaning than scientific and fostering movements toward paternalism and bureaucracy. Perhaps all of us, manufacturers, organized labor and doctors alike are too much inclined to think that as for ourselves we must be free agents but as for the other fellow he ought to be regulated.

It is to find out how we may work shoulder to shoulder with the other fellow that this meeting has been called. For the medical profession in Illinois believes that a square deal for the whole citizenship in Illinois involves these principles:

1. A single standard of medical education. Why, as was recently decided in a New York court, should a practitioner be convicted of manslaughter for allowing a child to die of diphtheria while he was administering a routine manipulation of this school, when there was nothing in his training which would enable him to recognize diphtheria when he saw it? We can't limit a man to the treatment of any group of diseases unless he is able to identify all of them.

2. A lightening of the burden of bureaus upon the tax payers of the state and nation. The orphan asylum is a wholesale application of the function of Motherhood and a mighty poor one. It has its place as an emergency measure only. The practice of medicine by federal bureaus is an equally unsatisfactory substitute for the intimate personal relation of doctor and patient. We believe in the closest cooperation with every public agency that will serve the public interest; we shall oppose every measure tending to lessen the personal responsibility of our members to those they serve.

3. The most rigid requirements both personal and professional of the men and women who practice the healing art and the most careful supervision of their work. We are willing to be regulated wherever it will improve the quality of service we can render.

From some things that have been said tonight we find the great organizations here represented

*Address before the Chicago Medical Society, May 23, 1924.

have been better friends than we thought. In other instances it is evident we must supply additional information about the facts in the case to make our position clear and to get their sympathy and support. We are deeply grateful for this opportunity of better understanding them and their activities and we hope to be able to convince them that the Illinois State Medical Society and its largest component member, the Chicago Medical Society, want nothing but fair play.

6054 Cottage Grove Avenue.

THE TREND IN MEDICAL AND NURSING SERVICES*

WILLIAM ALLEN PUSEY, M.D.

CHICAGO

I hope I will be pardoned if I take this occasion seriously and discuss at some length, but as briefly as I can, two important problems of medicine as a social agency. These are: (1) the high cost of nursing training; (2) the high cost of medical training. Let me call your attention first, briefly, to the nursing problem and then take up the vastly more important one of physicians.

THE HIGH COST OF NURSING TRAINING

The trained nurse for ordinary service has become inaccessible, except to the rich and for institutional and community employment. In order to save time, please assume that I accept at the highest value the present good type of trained nurse. There is need for her, but there is much greater need for a very large number of trained nurses who will perform the simple duties of attendants for the sick. That is the great function of the trained nurse. The ideals of the nursing craft are all away from that point of view. The House of Delegates last year in effect approved the recommendation that the standard for entrance requirements for nurse training include "a four year high school education," and then approved the proposition that "the education and training of the nurse should not be so expensive. . . . as to place her services beyond the reach of the average family." How are these two propositions to be reconciled? How is the average family going to pay the salary that the high school graduate, who has had two and a half or

three years' training in nursing, may justly ask? That puts her out of reach of most people except in cases of desperate emergency. That is not the kind of trained nurse that is most needed. There should be a trained nurse for the bedside who is available for service in ordinary illness for the ordinary family.

The proper work of the trained nurse does not contemplate that she is in a position of primary responsibility. Her duty is to care for patients' needs under the physician. If she is to do more—to assume the physician's function—she should take the medical course. The things she has to do are simple things. The work she has to do in ordinary service does not require a high school training nor three years of hospital training. It needs young women of character and intelligence, of a sense of responsibility and of elementary education. Given such a woman, and the time required to teach her in the hospital the technic of the nursing craft is a small part of three years. The effort should be made to provide, as well as a certain number of the present order of nurses, a nurse of that sort in large number.

There are, for example, in Illinois at least 136,000 births annually. The Department of Registration estimates that there are probably not more than 7,000 registered nurses in service, and many of these are taking care of children or more or less ill ladies in affluent families. In other words, there are not more than enough trained nurses in Illinois to take care of the obstetric cases, to say nothing of the scores of thousands annually of seriously ill. If no more nurses can be furnished and if less expensive nurses cannot be furnished, the purpose of their existence is largely defeated.

The nurses are by no means entirely responsible for the present situation. Much of the time in their training has been taken up in using them in the common menial duties of housemaids in the hospital.

THE HIGH COST OF MEDICAL TRAINING

One of the most serious problems of medicine is the increasing cost, both in time and in money, of the physician's training. We are producing now a class of doctors who, because of the extent of their training, can justly expect to obtain professional positions and recompense for their services which are very high in the economic and social scale. The results of the developing situation are shown by the many plans that are being

*Address of President-Elect of American Medical Association to House of Delegates, June, 1924. Reprinted from the Proceedings.

devised to get expert medical service to the man of small means, even in the cities; in the difficulty of getting hospital interns and medical assistants; of getting medical men for positions which they have always held, such as executives and medical officers of hospitals and similar institutions, of medical boards and medical societies; in the increasing difficulty of the Army and Navy and Public Health Service in filling their corps. Whenever a nonmedical man can be used in a quasimedical position it is now being done, because the younger medical men who would naturally be chosen for these positions cannot be obtained. Even in the Council on Medical Education and Hospitals, the use is being suggested of nonmedical clinical assistants in hospitals—to do work that would give invaluable experience to young men who are later to practice medicine. In the cities, the situation is not so distinct because the cities are still overcrowded with the older generation of practitioners who have not yet passed out. But even in the cities the situation exists. As a committee of the Philadelphia County Medical Society, composed of David Riesman and William Pepper of the Medical Department of the University of Pennsylvania, and Thomas McCrae and John H. Gibbon of the Jefferson Medical College say, in a report (*THE JOURNAL*, Feb. 11, 1922, p. 455) on this subject:

“Even in the cities there are not enough men to serve as internes, as physicians in outpatient department, and in junior positions in hospitals.”

The situation is the subject of lay editorials and magazine articles. It is recognized by the leaders of medical education in the constant discussions of modifications in the medical curriculum, so that general practitioners will be turned out. How to get young physicians to go into the family practice of medicine is the main topic of discussion of meetings on medical education.

The acute expression of the situation is found in the rural districts, but the rural problem is only part of the general problem arising from the expensiveness of preparation in medicine. I think it must be accepted that there is developing a definite scarcity of rural practitioners and that the situation will sooner or later constitute an emergency. It is now accepted by the Council on Medical Education and Hospitals, whose sec-

retary says, in his statement in *The Journal A. M. A.*, March 15, 1924:

“It is true that such a scarcity exists, and that this scarcity is becoming more pronounced is evident.”

I have taken occasion to ask, by letter, the secretaries of all the state medical societies, two questions: (1) Are young doctors going into the smaller towns? and (2) If so are they going in sufficient numbers to supply the future needs of the country district? I have received replies from nearly every state and, with few exceptions, the answers to both questions: “No” (32, No.; 4, Yes; 1 Yes and No; four letters did not answer the questions; total 41).

The reply that is usually made when we are put on the defensive about this situation is that there is no shortage of physicians. That answer is beside the point. There may be an excess of any commodity, including physicians; but if it is beyond the reach of a part of the population it might as well, as far as that part of the population is concerned, not exist. Perhaps there is an excess of physicians in every town of 5,000 or more in the country, but that does not help the situation in great districts of the country where physicians are running down to 1 to 2,000 to 1 in 10,000, or more, of population, and where those few are inaccessible to many of the inhabitants.

The explanations which, in one form or another, are generally given for the situation put the blame on the rural communities. They point out that economic and social conditions of the country are unsatisfactory to the modern medical graduate; that he has become used to hospitals and laboratories and other things of that sort—not to mention social refinements. These are but ways of saying that our present graduates are above the rural districts and that we are not providing physicians for them as they now exist.

REMEDIES SUGGESTED

The remedies offered are in line with the explanations. Let the rural districts improve their economic and social conditions up to our standards. Let them provide hospitals and laboratories. Let them make improvements in transportation; build good roads and buy automobiles, even establish ambulance services, so that their people can go to the places where the physician is willing to live. These remedies are practically

laying down the terms on which the country can get our services, and the more successful ones of us and the newer generation are laying down similar terms in the cities. They do, in fact, carry the bald inference that, if the situation is to be corrected, the 40,000,000 or 50,000,000 people in the rural districts will have to change their ways to meet the demands of the 30,000 or 40,000 physicians that they are going to need. I do not believe that, in the end, either the city or the country is going to make any appreciable alteration in its economic and social condition in order to avail itself of our services. Specifically, I believe it is impractical to expect that the rural part of the community is going to reconstruct itself, within any future so near as to be of any interest to us, in such a way as to meet the demands of one tenth of one per cent of its population, no matter how necessary that one tenth of one per cent may be to it.

Let the situation become somewhat more acute and let the 40,000,000 or 50,000,000 people in the country who constitute most of the producers come to realize that this sort of thing is the best we have to offer to them for the care of their suffering, and they will take the matter into their own hands. We should not wait for that time to occur.

We cannot escape the responsibility by maintaining, as in substance we do in these contentions, that the fault is the country's. That is not following sound economic principle. The social and economic conditions of a country involve great essential facts beyond the power of any small group to alter. To be on sound economic ground—and if our policy is to prevail, it must be on sound economic ground—we must meet the situation of scores of millions of people as it exists. We must offer a direct—not an indirect—solution, or sooner or later admit that the situation is beyond us.

In the cities, no suggestions are offered to overcome the scarcity of physicians, because there is no scarcity; but futile efforts are being made by us to change the results of our present system of medical education in the way that will get men back to the family practice of medicine for the everyday patient.

Almost none of the remedies that we offer seem to contemplate the maintenance in the rural districts of the old status of physician and patient. We offer no direct solution of the situation. The remedies offered are socialized substi-

tutes: the establishment of medical centers, of small hospitals and laboratories; the guaranteeing of part of the physician's income by voluntary subscription of individuals or by taxation of towns and districts; the establishment of scholarships on condition that the medical student after graduation will return to a given place to practice; even the building of hospitals and medical centers through outside governmental aid, in districts which cannot themselves afford to furnish institutions of this sort of sufficiently high grade.

These are all expedients—for the most part untried—to remedy a condition in which natural supply has failed to meet demand, and they are all steps in direction of medical socialism, or, if you please, "state medicine." As a matter of fact, some men see the logical end of the course we are pursuing and offer the opinion that "state medicine" is probably the only solution of medical services for the masses. That it is a step toward medical socialism particularly applies against the proposition which was adopted by the House of Delegates last year, recommending that districts in need should guarantee a certain income to the physician in order to get him to settle in its midst. Let the country acquire the habit of paying, as a community, a physician a salary for part of his service to that community, and it will be but one more step for it to hire him for all his service and have him as an employee for taking care of the community's sick. And then you will have the panels and the *Krankenkassen* of Europe.

Is this the only sort of remedy that we can offer? Are we reduced to the necessity of accepting as inevitable that the old order is passing; that we can no longer produce physicians to go out and do the old time, everyday work of practicing medicine; that we cannot change a course of ours whose direct trend is toward the day when service for the individual of ordinary means can be furnished only through some sort of industrial or socialized expedients; that in the rural communities there is no way of furnishing physicians of the new generation except by changing their economic and social conditions? Is there not some other way?

I raise the question: Is the medical profession so sure of the wisdom of the present standards of medical education toward which it is striving, and of the quality of that medical training, that it cannot consider any alteration in medical edu-

education which might remedy the situation by supplying the people with physicians, who would be willing to practice medicine as we have always done and as the older generation is now winding up its career in doing?

I have no inclination to criticize the work that has been done in the elevation of medical education in this country. I recognize the necessity there was for it and the courage and zeal and public spirit that was required to bring it about. I do, however, urge that, in pursuit of our ideals of scientific medical training, we have reached a point now where we must give consideration to these results.

In this situation, instead of unconsciously assuming that our present standards of medical education are sacrosanct and suggesting that everything else be changed instead of it, would it be contrary to public policy to have the universal degree in medicine one which would represent an adequate training for practitioners of medicine, but which would not be exacting beyond all other professions in time? I believe that such a course is feasible.

A PLAN OF ADEQUATE PRELIMINARY TRAINING

In order to put a concrete proposition before you, I propose that an adequate preliminary training for the practice of medicine could be given on the following terms:

1. The present accredited high school education.
2. Three years of medical training.
3. A hospital internship of not less than a year and a half.
4. Proper selection of students on the ground of fitness.

That would turn out a practitioner in from four to four and a half years after leaving high school.

In this proposition I am making no plea for the poor or the cheap medical school. The essential of a sound education of this sort, or of any sort, is a sound institution conducting it. I would make the requirements on medical schools as exacting as necessary to hold them to high standards of scholarship. I would have them, as far as possible, an integral part of strong educational institutions.

Nor am I offering this sort of medical education as a makeshift to meet a situation. I offer it as one that would be adequate, sound pedagogically—probably sounder than our present

course—and in line with other technical educations. The essential things in it are: first, that the collegiate part of the course should be educationally sound; and, second, that it should include a clinical training through a hospital apprenticeship. I am willing to maintain that such a course as I have indicated, carried out under proper conditions, and including not less than a year and a half in a good hospital, would turn out better practitioners than we have ever turned out, except perhaps since we added, two or three years ago, one year of hospital apprenticeship to our present requirements; for the most essential thing in training for the practice of medicine is a clinical apprenticeship.

Now, I know that the practice of medicine is an art founded on science, but I also understand that an art founded on science requires practical training to attain skill in it. And the only way that sort of practical skill can be gotten in medicine is through an apprenticeship in practice. This is just as true in medicine as it is in music or painting or playing billiards. The weakness of our medical education has always been here. We have tried to make our practitioners by giving them an academic and laboratory training and the merest smattering of clinical training, but have not required the apprenticeship necessary to attain practical skill and experience. Foster has pointed this out in an able article on the results of medical education as shown in the Army (*The Journal*, May 24, 1919, p. 1540.) He called attention to the fact that what our graduates lack, even from the better Class A medical schools, is not a knowledge of the things that should be done, but how to do them. Young men, who had clinical skill, had been in good hospitals; they might be deplorably deficient in it and come out of good medical schools. The great practitioners of medicine in this country, even in the last thirty years, have not come out of the great medical schools; they have come out of the hospitals.

Such a course as I have outlined would give the student the preliminary training, including the practical training, that would make him competent to face the demands that were placed on him in beginning practice; he would know what to do for the ordinary sick and injured, because he would already have seen it done and helped to do it. It would furnish a foundation that would allow him to build as high as he is capable

of. It is a better preliminary training than nearly all the great careers at this very day have been built on.

This sort of course I would require as the universal degree in medicine, an M.D. degree corresponding to the collegiate technical degrees. For the man who started out, or later decided, to become a specialist or consultant, or who wanted a university or research career, I would put the necessary number of years on top of this course and give him a degree that corresponds to the collegiate Ph.D. Our M.D. degree today represents fully as much time as the best grades of Ph.D.'s, but it represents nothing like the same standard of culture or of technical skill in special lines. Having the universal degree and its preliminary training in clinical medicine, the man seeking the higher places in medicine would then have the proper foundation on which to prepare himself actually for them. The higher degree would mean something. Tradition would soon give it value, and the highly ambitious men would seek it as they now do for memberships in the colleges of Great Britain. In the meantime, it would leave an opening in the primary degree for that great number of useful men who desire to take up the work of the everyday practice of medicine—the men who constitute the great and useful majority of the profession.

The social need of medicine is this sort of practitioner. The point I am trying to make is that we can produce such practitioners in four years after graduation from high school, and that we shall have to do something of this sort if we are to meet the proper demands of service to the whole people that society has a right to expect of us.

In such a plan I would make the requirements of the student so exacting that medicine would not be overrun by mediocrity. Our schools are now filled with students who are able to spend seven years in order to aspire to careers in medicine. I would not interfere, if I could, with a few schools whose aim is only to supply the Ph.D.'s of medicine; but I would make the requirements of those schools so exacting that their graduates in number and culture would correspond to the Ph.D.'s of the best universities.

The demand for the four year course would

certainly be greater than at present. That would enable us to exact from students the highest standards of fitness. At present, among the requirements for the study of medicine the most difficult one to meet is the wherewithal for the student to live until he is 25 or 30 years old without supporting himself. Under the plan I propose, we could cut this difficulty almost in two, and we could make as exacting as necessary the requirements of fitness, which, after all, is the great one in medicine or any other vocation. Fitness, and not a competency in early life, could be the essential requirement for a medical career.

OBJECTIONS

Time will allow only brief reference to the objections that will be raised to this proposition: The high school graduate has not had a training to grasp the intricacies of modern medicine: three years of collegiate study would not be sufficient to train him in the essentials of medicine. I would be more impressed with the validity of these arguments were it not true that a very large number of the ablest members of our profession, even at the present time, have had as little or not more preliminary scientific training, and have shown themselves able to comprehend successfully the intricacies thus far. In a positive way, I am very strongly of the opinion that the intelligent high school graduate can undertake the study of medicine; can, in three years be grounded in the principles of medicine; can, in addition, get a comprehensive grasp of the essentials of the practice of medicine; and can be trained to the point where he can continue his professional development. And that is all that we can reasonably expect in any preliminary training. As for the high school preliminary, to quote Mr. Abraham Flexner, “. . . a highly useful doctor can be trained on the high school basis if his defects are made the basis for more instead of less efficient instruction” (*Medical Education in the United States*, p. 41). As a matter of fact, the essentials—and by the essentials I mean that part of a subject that is necessary to get a grasp of its principles and an orientation of its important facts—the essentials of biology, bacteriology, anatomy, physiology, chemistry, pathology, even of the practice of medicine and surgery, are not so extensive that they cannot be covered in a collegiate course of three years, including in the laboratory sciences suffi-

cient illustrative laboratory experience to familiarize the student with the technical methods of these various subjects. More than that he should not have. It is all that you and I carry in our heads, except in subjects to which we give life-long, intensive study. The best that any man can hope to have is such an orientation of essentials. For details we must refer for information.

We must sooner or later face the fact that our preliminary training will have to be confined to essentials of this sort. We have been arguing for the increase of our medical course on the ground of the vast increase of medical knowledge. Medical knowledge is not static. It is entirely possible that it will increase as much in the next twenty-five years as it did in the last twenty-five years. When that time comes, are we going to add two or three or four years more to the preliminary training? In three or four generations, life would be too short to make any physicians at all.

Our students are now overloaded with detail which is beyond anybody's capacity to retain, which interferes with proper education, with proper appreciation of relative values, and with proper perspective in medical knowledge. This, I believe, is one great reason why nearly every student comes out feeling that he must be a specialist. He is so overwhelmed with the detail knowledge of medicine that he realizes that he cannot carry it all and must confine himself to one small field of it. As a matter of fact, nobody can carry all of it in one small field. And I think the estimate fair that, in the practice of medicine, 90 per cent. of our work is covered by a knowledge of essentials and of our usual procedures. In a small part of it we all have to get help by study or consultation, no matter how expert we may be in our particular lines.

Let me say in this connection that I do not underestimate the value of an academic training such as is represented by a college degree, but I value it rather for the background of culture that it gives a man in his general outlook on life than as a necessity for the study or practice of medicine.

The course that I have suggested is not so radical as we are likely to regard it. It is not out of proportion with the courses that prepare for other learned professions. It is ours that is out of proportion with all the rest. A high school training is accepted by the universities as

sufficient preliminary training for the technical professions—for civil, mechanical, electrical and mining engineering, for example. I do not believe that it can be successfully maintained that the preliminary training necessary for beginning the study of medicine requires a more mature mind, or one more capable of grasping complex problems, or a more difficult preliminary education than do courses leading to these degrees which are founded on mathematics, physics and chemistry.

There is an attitude, when such a course as I have outlined is suggested, that this would turn out men of second rate education; that medicine cannot afford to reduce its educational standards to this low degree. I do not believe that is justified by the condition in the other learned professions. The colleges find that they can take young men from high school and give them in four years the accepted amount of general culture for intellectual careers. They do the same thing with the technical professions at the same time that they are giving them their professional training; and the engineers and architects and chemists do not suffer in the cultural comparison. Is there any reason to believe that the biologic sciences, and medicine itself, are not as good means of intellectual training as are other scientific studies?

Our disproportionately long course puts us at a disadvantage with these other professions in competition for young men. Medicine's material rewards are certainly no greater; its intellectual exercise and its careers are no more attractive; but the preparation for its practice requires three years' more time and several thousand dollars more money at the time when economic pressure is hardest. This relatively greater cost in time and money of medical education is a matter of decisive importance. If it does not seem so to you now, I ask you to go back to the time when you contemplated the study of medicine, and consider whether \$10,000 or \$12,000 of expenditure and seven years of immediately unproductive preparation would not have been appalling to most of you then: if the saving of \$3,000 or \$4,000 and three years of your time might not have been a critical matter in the choice of your occupation? Who can doubt that this drives away from medicine to engineering and other professions many of the best quality of young men?

Ours is the only profession that requires as a

minimum for everyone of its practitioners a period so long that its independent, responsible work cannot be undertaken until a time in life when other young men have gotten well started in their careers. Aside from these economic difficulties, this undue prolongation of pupilage is open to grave criticism. Many students of education have called attention to the dangers to character that result from keeping young men and women too long under the educational direction of others. After parental influence there is no part of the discipline of life that has more to do with the development of sturdiness of character and practical success than do the experience and discipline which are gained in the early years of manhood when life's responsibilities are assumed. It is desirable that this experience should come in the plastic period of young manhood. We are postponing it in medicine later than in any other vocation. This prolongation of tutelage and postponement of the responsibilities of life constitute a grave indictment against our policy of medical education. And this is increased by the makeshifts which are being proposed in order to help young men along in their medical education or in the early years of their practice, such as scholarships, bonuses and other crutches for men who would do better if they were so situated that they could walk alone. It is not conducive to a virile profession to have its members go well along into manhood before undertaking the independent responsibilities of life.

It is argued, of course, that there can be no compromise on a matter so vital as training for the care of human life, and that sounds like an unanswerable argument. It is true that the best doctor is none too good; it is equally true that the best doctor is not good enough. There is nothing easier than to give counsels of perfection, and there is nothing more likely to lead into situations of impractical futility than to follow them. On the same reasoning there would be no school teachers except Ph.D.'s, and then there would be school teachers only for the few. If we make physicians who are out of reach of a considerable part of the population, we are making no provision for physicians for that part of the population. It is not meeting the practical demands of life. The world must have physicians it can afford to employ. What service do we per-

form for a community by insisting that only a physician of our standard is good enough for it if we furnish it no physician at all or none that it can get?

One of the assumptions that we have accepted as a matter of course is that we should undertake to equal the standard of medical education in Europe. I am not unresponsive to the experience and judgment of other nations in medicine, but I do not accept it as axiomatic that we must adopt continental, specifically German, standards of medical education. Indeed, to me the strongest argument against our present plans of medical education is the medical service in Europe that has arisen under its system of medical education. The doctors in Europe present the same difficulties that we have here. They do not furnish independent medical service to the population in general. Except through organization, they are the physicians of the upper classes. Mr. Abraham Flexner's report on medical education in Europe for the Carnegie Foundation for the Advancement of Teaching, in 1912, shows that in 1907 there were in Prussia more midwives in proportion to the population than there were physicians in proportion to the population for the whole German Empire (one midwife to every 1,816 inhabitants in Prussia, one physician to 1,912 inhabitants in the whole German Empire). That means that obstetrics for most of the people of Prussia and doubtless of Germany is in the hands of midwives. That tells the story of the sort of independent medical service—I mean independent as distinguished from institutional, industrial and state medical service—that the worker and peasant in Europe get. We hear much about the inadequacy of the medical practitioner produced under our old conditions of education, but at its worst it never gave the country service as low as that. Is that the sort of thing that we want to reach in this country? Do we want to work to an economic situation where the personal physician would be a luxury beyond wage earners and farmers? It will fortunately be a long time before the American wage earners are as patient and docile as their brothers in Europe have been, but even with them the present situation of medical service is in constant difficulties. There is "state medicine" and industrial medicine in the form of the panels and the *Krankenkassen*, and these are satisfactory

neither to physicians nor to patients. There is turmoil now on both sides over them.

Of course, the answer is made that this cutting down of the course to four years would not overcome the difficulties; would not get men back to family practice nor to the country. The same arguments are used to support this position that were used ten or fifteen years ago to prove that the proposed increased requirements of medical education should not cause the difficulties that were predicted then and that have since occurred. Now, although these difficulties, which were predicted from the change, have occurred, it is stoutly maintained that they are not due to the obvious cause but to innumerable collateral circumstances. This contention is an argument of defense. It has the advantage that it cannot be entirely disproved except by experience, and we are making no plans to verify its correctness by experience.

Besides the pragmatic argument of our experience and of the difficulties that have developed, there are many arguments that might be adduced to indicate that this contention is not correct. The great fact, which has preponderant weight in this connection which no amount of argument will set aside, is the action of the general economic principle that, as you increase cost you restrict distribution. This principle acts inexorably whatever your commodity; and practicing physicians are a commodity that comes under its control just as surely as do automobiles.

THE OUTCOME

To sum it all up, the point which, as I see the situation I feel must be made, is that we are confronting, to use Cleveland's famous phrase, a condition and not a theory; that we are approaching a situation that far exceeds in importance mere academic consideration. I have suggested one plan which I believe is adequate and would go far to relieve the situation and is in accord with sound economics. I do not suggest it as the only plan or the best one. Let some one present a better and a more practical plan that meets the situation directly. I emphasize "directly," for if the solution is to be by economic and social changes it will not be left to us; that sort of thing is beyond any small group. Sooner or later the problems will demand solution. It is desirable that we should guide in

this. If we do not, I believe there are three possibilities: Medicine for the masses will cease to be an independent vocation, and we shall have medical socialism; or the legislatures will take the matter into their own hands and we shall have a confusion in the standards for the practice of medicine; or a large minority of the community will be without physicians.

SAFEGUARDING THE PUBLIC HEALTH*

C. ST. CLAIR DRAKE, M.D.,

CHICAGO

Within the past two or three decades preventive medicine has made enormous strides. The prevention of disease and the promotion of health long ago ceased to be purely the business of the public health official and within the past few years public health activities have come to receive tremendous popular interest.

With the awakening of social conscience which came to us during the war there has been a multiplicity of agencies struggling to accomplish something in the public health field. That a great deal has been accomplished by these numerous agencies is unquestionable, but it appears that the future of the public health work would be more safely guarded if the various agencies or groups of agencies could be intelligently and impartially surveyed and each group assigned to the functions it is best fitted to perform.

At the present time public health work is being done by four major groups of organizations: (a) the governmental or official health agencies; (b) the volunteer health organizations; (c) the various commercial agencies, such as the insurance companies, the industrial organizations and more recently, the farm bureaus; and (d) the professional group made up of the rank and file of the medical, dental and nursing professions.

It is not my purpose today to discuss the governmental, the volunteer, or the commercial agencies, but rather to lay emphasis upon the importance of the medical group and the possibilities in the way of public health endeavor that lie within the reach of the organized medical profession.

In times past, there was something of a feeling on the part of the standpat governmental authorities of the old school, that the province of public health was exclusively the domain of the public official and not infrequently one would

*Read before annual meeting of Illinois State Medical Society, May, 1924.

hear the prophecy that all of the activities of the extra-governmental organizations would eventually be absorbed by the governmental agencies. This belief has been very generally abandoned and we have come to recognize that public health is the business of the people and that it would be unwise, even if it were possible, to absorb, to abolish or to needlessly impede the work of the volunteer organizations.

It has been the custom of the governmental health authorities to utilize the medical profession for the advancement of public health work and the custom of extra-governmental or volunteer agencies to create their organizations without consulting the medical profession and then to exact of the profession a large measure of professional service for which the medical men have been given little, if any, credit.

It is my purpose to suggest to you today that the organized medical profession is the agency through which the maximum of public health progress may be attained. Neither the governmental nor the extra-governmental health organizations can proceed very far without the cooperation and support of the medical men and up to this time, the medical profession has been largely exploited in health programs in the framing of which the profession has been asked to take no part.

This situation has naturally produced a certain degree of reaction and the medical profession has not infrequently been placed in the false position of manifesting lack of public spirit because it has failed or refuses to be the tool of the agencies making demands upon it.

It is my judgment that the time has come when the medical profession should assume the leadership to which it is naturally entitled in public health activities. It should set the pace and pave the way in the field of preventive medicine and should utilize for the public good those powers and those influences which no other agency can ever possess.

From time immemorial, the family physician has been the guide and advisor of the layman in all matters of individual and community health and it is to be greatly deplored that for one reason or another he has been losing his influence in this direction. In every hamlet, in every village and at every cross-road, there is a physician affiliated with the organized medical profession qualified by his education and experience to be

the public health educator of his community and if this great army of physicians can be organized in a constructive public health campaign, the possibilities for good will be without measure.

The lay education campaign of the Illinois State Medical Society is a step in the direction of the doctor coming into his own and the suggestions which I have to offer today could be carried out as a part of that campaign.

The lay education campaign committee has already announced a series of talks on medical subjects to be broadcasted by radio telephone. The enormous popularity of the radio makes this an exceedingly valuable means of education provided the details are carried out in a satisfactory way. It is stated that there is a listening audience of 1,300,000 persons reached by radio every night in Illinois, of whom 560,000 are to be found in the city of Chicago alone.

The radio audience, however, is an exceedingly discriminating and restless audience. It will not permit itself to be bored. It can switch off an uninteresting talk on public health at its will and switch on grand opera or a jazz orchestra without noticeable discourtesy to any of the performers.

The great problem of reaching the lay public through radio will lie in securing material which will be acceptable to this restless audience. The public is not thirsting for wholesome and helpful scientific information unless this information can be delivered with a distinct punch and in a most attractive way and I believe that all of us who have been interested in public health work over long periods of time appreciate how rare is the speaker who can make public health palatable and entertaining.

To make radio broadcasting of health talks entirely successful, it is advisable to have talks carefully prepared by writers who are competent to speak with authority and to have all of these talks carefully censored before they are delivered. This censoring should be done by a committee made up in part by physicians, but also utilizing the services of publicity men who are capable of judging those things which will prove attractive to the average audience of laymen.

In my opinion the tremendous value of the radio is but beginning to be appreciated. I am profoundly convinced that the Illinois State Medical Society would find it profitable to establish a broadcasting station of its own through

which all of the activities allied with medicine could be given voice under the influence and patronage of the organized medical profession. This would involve the expenditure of perhaps \$25,000.00 for the equipment of the station and an annual expense of \$10,000.00 to \$15,000.00 for operation. Large as this investment may appear, I believe that it would prove its worth in the passage of time. Confident as I am of the future of the radio as a means of education and confident as I am in the increasing interest in public health, I am satisfied that it would be well worth liberal expenditure for the State Medical Society to have its own means of broadcasting which would be employed not only for its own educational campaign; but through which the various extra-governmental health agencies would be invited to reach the public. This would lead to the very desirable linking together of the extra-governmental organizations with the State Medical Society as their center.

If, however, the operation of a broadcasting station is now out of the question, much can be accomplished by the judicious utilization of the existing stations if the editing and censoring of material is wisely carried out and if the broadcasting is done in the name of the State Medical Society without too much emphasis upon the name of the individual who would thereby incur the suspicion of self-aggrandizement and self-advertising.

The employment of newspapers and magazines for public health education, as already proposed in the lay education campaign, can be made of the utmost value; but here, as in radio broadcasting, the material offered must consist of that rare combination of sound scientific fact with a literary style which will command attention in competition with other literary productions. The conservative and dignified style which properly characterizes the bulk of medical writing and which is usually affected by medical writers, will not attract the attention of the average lay reader or find favor with the busy editor whose desk is piled daily with contributions from governmental and extra-governmental health and welfare organizations.

Health education, to be effective, must be of such character that he who runs may read and, on this account facts which are visualized in exhibits or in picture will go further than those buried in cold type. It is my opinion that the

State Medical Society should assemble a portable health exhibit which can be loaned to the county medical societies and brought by them to the people of their communities, through county fairs, farm bureaus, chautauquas, home coming celebrations and the district meetings of the federated women's clubs. Such an exhibit should be presented first at the annual meeting of the State Medical Society where it should be shown in operation and be demonstrated by experienced attendants, especially to the officers of the county medical societies, so that they may be thoroughly familiar with the aims and purposes of the exhibit and its most effective method of production.

Such an exhibit, in addition to purely public health material, could contain convincing posters and models and other materials which have been found to be helpful in popular health education, including matter depicting the dangers of patent medicines, the inefficiency and inadequate training of the various drugless healers and other subjects which, in justice to the medical profession, should be brought to the attention of the lay public.

In times past, the doctors of the various communities have been asked and expected to sponsor various forms of health exhibits assembled by governmental and extra-governmental health organizations without consulting the medical profession as to what they contain and often exhibits which are not scientifically accurate or sound. It is high time that this excellent avenue of education and publicity be employed by the doctors themselves and be introduced to the public through the several county medical societies.

Under existing conditions, the physicians who refuse to sponsor health propaganda of uncertain origin or uncertain character, immediately come under suspicion as obstructionists and opposed to the march of progress and they will continue under this suspicion if they continue to oppose health activities, however justified they may be in doing so, without offering something in the way of progress of their own.

There is no phase of public health propaganda which has made so strong and so general appeal as that of child welfare and no phase of child welfare work which is so appealing as demonstrations of infant examination. In the past, infant examination demonstrations have been carried out by governmental and extra-governmental

agencies, the medical profession being expected, of course, to furnish without cost the essential medical service. The manner in which the demonstration is to be carried out is previously determined by the interested agencies without consulting the medical profession and, if the undertaking is a success (as it always is) the credit and the tremendous publicity which always accompanies it, go to the organization with little recognition of the doctors themselves.

The various lines of public health activity which may be created by the State Medical Society and readily extended throughout the State through organizations already existing in the county medical societies cannot be even touched upon at this time; but in my judgment the time has come when the medical profession should enter into a great public health campaign both for the benefit of the public as a whole and for the benefit of the profession itself.

I do not mean, in this suggestion, that the medical profession or the state or county medical societies shall cease to co-operate with the governmental agencies nor that they shall impair in any way the efficiency of the extra-governmental or volunteer organizations whose programs are sound and well-established. In fact, the employment of the great educational power of the organized medical profession, which is now lying fallow, will strengthen every other phase of legitimate public health work.

Examples of this are already available. The tuberculosis work of the State, which has always been closely allied with the medical profession, has been made infinitely more effective by the one day schools of instruction, which have been worked out jointly by the State Tuberculosis Association and the State Medical Society, through conference between Dr. Pettit and Dr. Ochsner, and under conditions which meet with the unqualified approval of the medical profession.

In Sangamon County, the county medical society has invited all extra-governmental agencies desiring to engage in any form of public health work, to submit their programs to the county society for consideration and, if the program is acceptable to the medical profession, it receives cordial endorsement and cooperation. It is found that the extra-governmental health agencies greatly desire this cooperation and that they readily accede to the reasonable changes or requirements that the county medical society may

impose upon them. The difference between lay health organizations and the medical profession usually lie in the failure of the organizations to understand the ethical, medical point of view and not in any disregard which these agencies have for the medical profession upon whose services their success usually depends.

The general public has not understood the attitude of the medical profession in the past. It has misinterpreted our honest conservatism. If we have failed to enthuse over some ill-founded program based upon unscientific and unethical principles, but purporting to deal with child-welfare, we are accused of being opposed to the welfare of children. If we fail to subscribe to some fantastic health program, promoted by professional social workers through well-meaning but misguided women's organizations, we are suspected of opposition to the public welfare. Perhaps we are somewhat to blame for this. We have many times honestly opposed health movements with which we could not conscientiously agree; but we have failed to offer a deeply interested public anything in their stead.

DISCUSSION

Miss Carroll Keller, Chicago: *Members of the Public Health and Hygiene Section of the Illinois State Medical Society:* Dr. Drake has brought out two phases of the situation in Illinois, upon which the success or the failure of your lay education campaign depends. In the six weeks time that we have been doing concrete work on this campaign, the larger proportion of the effort has been devoted to lining up available ways and means of reaching the people of the state. As has been indicated on the little report that was included with your program at the time you registered, we have already succeeded in making opportunities. That was comparatively easy; the difficult part and the important part depends on our being able to secure the proper material to be presented, and to arrange for its presentation by men who are recognized in the profession.

We have ready a list of subjects on which we have already contracted to furnish talks. This list should be multiplied in a few months time by ten or by twenty. It is merely a beginning. Don't get the idea that we will talk about nothing else than that already indicated. A quantity of these lists will be found on the table immediately back of your seats, and I should very much appreciate it if each of you would take time to look them over.

We propose to get together our talks for radio and to Kiwanis, to Lions Clubs and to women's clubs in this fashion: whenever you can, we should like to have you write out your ideas on the various topics and send them in to our central office. We have had considerable training in knowing what

the average man and woman will read and will listen to, and we do know there will be no merit in sending out a mass of material that is without influence and without effect. That being true, we propose to take your papers, or if you haven't time to write a paper, interview you individually, sometimes half a dozen men for each of the topics, and put those talks into popular shape. We will try to make each fit the particular audience for which it is designed and in order to safeguard you, we will check back with you on every scientific and technical point presented, because no one of us layman can make sure that in popularizing we are going to be strictly accurate.

We are hoping the men and women in this convention will make it possible first to find out what their particular field of interest is so we will be able to reach the right person for material on the several topics, and second, that they will give us new marks to shoot at.

We are indebted to Dr. Drake for many of the topics listed for radio. We have added some suggestions that have been asked for by our audiences. We want more things to talk about. You are continually meeting situations in your practice that could be alleviated provided people knew a little bit more about your point of view. Those are the details you doctors will always have and the lay director will seldom have.

Every man with whom we make an appointment to speak before a lay organization will be given at least two weeks in advance a copy of the complete talk. We want men who will present these discussions at appointments we have made, and we shall use every effort to make such occasions fit in with your time and your convenience.

We would rather have one appointment each year with 500 men than to have 5 men with 100 appointments or 20 men with 25 appointments each. We want this to be a cross section of the whole society, not the work of a small committee or section of men who happen to have had experience along public lines. There is a great deal of ability in the society which has never been brought out; some can help in the compilation of the talks; some of you have broad acquaintance with business men and laymen and can make opportunities for us; some of you can talk readily and can make a good impression on a lay audience. There are jobs to fit every man's native ability.

In addition, we are particularly anxious to do the thing that Dr. Drake emphasized; that is, to eradicate the idea that a great many people of this state have that the doctors on every subject of public health are negative. I made a survey some time ago of more than 8,000 people of the middle west. They had no idea that this inquiry was made for the benefit of the Illinois State Medical Society. We simply got them started on the subject of what they had done when they were sick last, and the easiest thing in the world is to get people to talk about themselves, doctors included. We had no difficulty in getting information, and in more than

7,000 cases among the 8,000 people from whom we made inquiry there was some misconception of what the doctor had done or should have done or could do, and what the other fellow the Osteopath, Naprapath, and others had been able to do. Too many of these people had the negative idea about the doctor. We can only work an effective news or publicity bureau, through the local papers or publications of national circulation, providing the doctor utilizes the public health agency, the Governmental agency, the lay agency; all of whom are very willing to do the work, provided the doctor uses them instead of permitting himself to be used by them or giving himself a bad reputation by refusing them.

The matters which the newspapers are willing to print are those things relating to the activities of people. This must be human things about human folks. Some people will swallow a certain amount of scientific facts on your authority because you are the family physician, but if you want a following among business men, among women's organizations, among the radio audiences deal with folks. This simply means the necessity for a little centralization, and there is no department of doctors in your whole society more competent to help with the opportunities you now have than the men who are interested in Public Health.

We are only beginning. We have had a gratifying amount of success in making opportunities for you; we have a full summer's work in making good our promises; we have committed the Illinois State Medical Society to do much and we know they can produce. The way you personally can help us to produce is to put us in touch with men who can help us write, help us talk, who can give us chances for news stories and chances to talk, who can make opportunities of using the Extra-Governmental, the lay agencies, and the public health agencies and through all these help us give a real percentage of service. I thank you.

ANOMALY OF STYLOID PROCESS COMPLICATING TONSILLECTOMY AND REPORT OF A CASE.*

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CHICAGO

The presence of bone and cartilage in the tonsils and adjacent to it has been reported by many men at various times. The origin of certain types of bone being almost self-evident—whereas other types remain unknown.

In 1893 Orth reported the occurrence of cartilage and bone in the tonsil and explained their incidence as being embryonic and probably resulting from the second branchial arch.

Several men have reported since that time the

*Read before the Illinois Masonic Hospital Staff Meeting, Feb. 19, 1924.

finding of a long styloid process which interfered with the removal of the tonsils and in some instances was cut off during the operation. Newcomb and Sterling each reported cases where a part of the styloid process was amputated during tonsillectomy.

Dwight comments that extremely long styloids are not unusual and probably due to ossification of the styloid ligaments which passes very close to the tonsil.

Gray describes the styloid process as follows: "A sharp spine, about an inch in length; it is directed downward, forward and inward—varies in size and shape, and sometimes consists of several pieces united by cartilage; it affords attachment to three muscles:—the stylo-pharyngeus, stylo-hyoidens and stylo-glossus—and two ligaments, the stylo-hyoid and stylo-maxillary."

The embryonic development of the styloid process is the ossification in cartilage from two centers: one for the base, which appears before birth and is termed the tympano-hyal; the other, comprising the rest of the process, is named the stylo-hyal and does not appear until after birth.

"The stylo-hyoid ligament may be described as a ligamentous band. It is a Fibrous cord, often containing a little cartilage in its center, which continues the styloid process down to the hyoid bone, being attached to the tip of the former and the small cornu of the latter. It is often more or less ossified, and in many animals forms a distinct bone, the epihyal."

History of Case: Name: Mr. G. L. Referred to me November 30, 1923, by Dr. John Weatherson. Age, 70 years; occupation, farmer; born in Bordeaux, France. Patient is of slender build; head small; narrow pupillary distance, but nothing particularly unusual about the physiognomy. Stated that the dentist who had extracted all of his teeth a year ago said "he had a mouth like a monkey," but did not give any reason for this observation.

For a period of several months has been unable to use his left arm in his daily work due to stiffness of the shoulder joint with pain on motion and had been under the care of Dr. Weatherson for this ailment. He referred him to me for examination of the throat and opinion as to whether there might be a focal infection in the tonsils. Did not give any history of sore throats, tonsillitis or quinsy, but had noticed a slight swelling of the glands under the jaw at various times.

Findings: Examination of the throat was made and found moderate sized tonsils, protuberant, which exuded considerable pus on pressure; pillars were purplish in color giving the picture of a typical rheumatic

throat. I hesitated to recommend the removal of the tonsils due to the patient's age, but after consultation with Dr. Weatherson and finding that there was no contraindications whatsoever except age—advised him to have tonsillectomy under local anesthetic.

Operation: December 3, 1923, I operated on this patient at the Illinois Masonic Hospital using a local anesthetic—first painting the surface of the tonsils and adjacent tissues with a 10 per cent. solution of cocaine followed by the usual injection of novocaine 1 per cent. with adrenalin added—two minims to the dram. I used my usual technique of blunt dissection and snare—the tonsils came out easily—followed by very little bleeding.

After the left tonsil was enucleated I discovered a hard, rigid growth diagonally across the tonsillar fossa from above downward which on first observation I thought might be a large calcified vessel. However, on digital examination found that it was probably bone or cartilage. I was unable to palpate a free end superiorly or inferiorly.

A tentative diagnosis was made of an extremely long styloid process possibly attached to the hyoid bone.

Patient was x-rayed and our diagnosis confirmed—and a styloid process demonstrated five centimeters long and five millimeters in diameter at its attachment with the temporal bone, tapering down gradually to the width of approximately two millimeters where it was attached to the hyoid bone.

It was also shown that the right styloid process was very much elongated, but did not project into the tonsil fossa and was not attached to the hyoid bone.

Patient made an uneventful recovery which was in no way retarded by the anomaly.

This experience has again emphasized to me the necessity of using one's fingers in examination of every throat case. It is very easy to believe that serious surgical complications might be incurred if the presence of bony growths in the tonsillar area is not diagnosed before operation—and it was only good fortune that such was not the case in this instance.

"LOYALTY DOWN"

BY MILITAS*

The phrase, "Loyalty Down", is one used in military circles, and the idea, "Loyalty Down", is an essential component of good military morale. The morale of the regular medical profession hereabouts is not good enough. Medical men may with profit contemplate and put into practice that which will improve the morale in their profession.

The medical profession is as much engaged in a fight as an army beset by enemies. There is the fight against disease toward which we present a fairly united front. There is the fight

*The identity of the author is known to the Editors.

against irregular practitioners. There is the fight for financial returns for our practice. There is the fight against social medicine. Some of us alienate public support by opposing women's clubs who support nurseries and dispensaries, then we look for public support against quacks only to be surprised by the indifference toward us of broad minded groups. We fight drugs and alcohol but we do not present a uniform front.

We want to be united, but friction and distrust and disloyalty keep us disharmonious. Our morale is poor. The leaders and executives in medical affairs are the ones who most notice our disunion and are the ones who are most disheartened and perplexed by it. These leaders are quite conscious of their own loyalty to their superiors and expect their inferiors to imitate them by giving their loyalty to them.

"Loyalty Up" is the common conception of loyalty. For example a captain may be intensely loyal to his colonel and to his general, so he expects his men and lieutenants to be loyal to their captain. But experts who have scientifically studied morale have disclosed the fact that "Loyalty Up" is not of itself sufficient to create morale. "Loyalty Down" is needed to complement "Loyalty Up". "Loyalty Down" means that the captain must be loyal to his troops and officers of lesser rank; must guide, instruct and help them; must support them in the things which they initiate; must be encouraging to them; must cleverly seek means to promote them; must give them opportunities to develop; must help them correct their mistakes, must not be jealous but must be proud of their success; and must be willing to have them become his equals or even supplant him if "for the good of the service."

Similarly the leaders in the medical and allied professions must acquire "Loyalty Down" if they are sincere in their desire to increase medical morale. Editors must esteem and elevate their associates, abstractors, authors and correspondents, and must forsake the role of condescending superiority. Superintendents of nurses must relegate the supervision of obedience to a minor part of their duties. Attending men must be loyal to their interns. Professors must be loyal to their staffs. The faculty must be loyal to their students. Alumni must be loyal to undergraduates. Old practitioners must be loyal to the younger men. County society offi-

cials must be loyal to their members. Executives must be loyal to their former associates after they leave for independent practice.

The prognosis is good because physicians are accustomed to be loyal to the best interests of their patients, and they are more or less accustomed to be loyal to their medical leaders and elected representatives. The degree of loyalty,— "Loyalty Up" and "Loyalty Down", is the measure of one's unselfishness and is prognostic of the amount of happiness one will earn for oneself in group endeavor.

OBSERVATIONS ON THE USE OF INSULIN IN NON-DIABETIC CHILDREN*

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The number of cases herewith reported is not sufficient, nor has the time of observation been long enough, to give a detailed report or to justify definite conclusions. However, this preliminary report is given in the hopes that others with greater clinical facilities at hand will make similar investigations, and either prove or disprove the efficacy of the treatment used on the cases here reported.

Case 1. Malnutrition with tuberculosis. Ellen; aged 2½ years.

Admitted to the Methodist Hospital in October, 1922, when 17 months of age. She was born of a tubercular mother, and cared for by her since birth. She entered the hospital with a discharging dactylitis of the right fourth finger, and with both ears discharging profusely. Mentally she had not developed beyond about six months of age. She weighed 18 pounds. Placed under hygienic surroundings, and given a balanced diet and cod liver oil, she apparently improved in health during the next two months. She gained three pounds in weight, the dactylitis healed, and the ears stopped discharging. Then she grew progressively worse, and in July, 1923, a typical constant encephalitic facial expression became quite pronounced. The clinical signs and spinal fluid analysis warranted a diagnosis of encephalitis. But the tubercular etiology which the history led us to suspect could not be proven. In October, 1923, her tonsils and adenoids were removed. Three weeks later the left cervical gland, which had been very large and hard for a month, softened and was incised. This gland continued to drain. She took even less than the small amount of food that she had been eating, became apathetic and rapidly lost weight.

On Dec. 16, 1923, we began giving her Iletin, 5 units, three times daily. This treatment was continued 35

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days. After the first 3 or 4 days she began to show signs of improvement. She has continued to improve gradually since that time. After 15 days of Iletin the cervical gland had entirely healed, and the encephalitic expression had disappeared. She now smiles, plays and shows interest in objects or people for the first time in her life. She began standing six weeks after the beginning of Iletin, and is now running around her crib with apparently no difficulty. Dec. 16, 1923, the day of starting Iletin, she weighed 21 pounds 10 ounces. Jan. 20, 1924, when Iletin was discontinued she weighed 24 pounds 8 ounces. Feb. 20, 1924, she weighed 25 pounds 14 ounces. Before starting Iletin she never ate more than 1,000 calories of food in 24 hours. With Iletin her appetite and ability to handle food increased very markedly. Since the 10th day of Iletin she has not taken less than 1,800 calories daily, and usually takes more. The 25th day of Iletin her diet totalled 3,000 calories. We permitted her to eat what she wished of the food placed before her.

Case 2. Normal infant of tubercular mother. Lucille; aged 3 months.

Born of a tubercular mother and cared for by her until admitted to the Methodist Hospital Nov. 9, 1923. She was given the usual care for a tubercular infant for prophylactic reasons. On Dec. 17, 1923, she commenced receiving Iletin, 3 units, three times daily, for 34 days. She has made a practically normal gain in weight. She weighed on Nov. 9, 9 pounds 4 ounces, and on Dec. 17, 12 pounds. Jan. 4, 1924, the 34th and last day of Iletin she weighed 13 pounds 8 ounces, and on Feb. 16 she was discharged from the hospital weighing 14 pounds 10 ounces at 5 months of age.

Her appetite and ability to digest food was remarkable. When Iletin was started she was taking 800 calories of food daily. On the last day of Iletin she was taking 1,000 calories, and the day she was discharged from the hospital she received 1,400 calories. She received that amount because she demanded it. This child's development is that of a normal infant. She is the picture of health, and shows no indication that her tubercular heritage and environment have harmed her in any way. Perhaps Iletin deserves no credit for this. At least it has done her no harm.

Case 3. Acute inanition. Baby Claude; aged 9 days. Claude was ushered into the world on Dec. 24, 1923, after a long prolonged labor, with high forceps. It required about 30 minutes of stimulation to start respiration. Being too weak to nurse the breast, bottle, or Breck feeder, he was fed with a medicine dropper. He gradually became worse, and on Jan. 1, 1924, became cyanotic, and was kept alive only by the administration of stimulants and oxygen. Iletin 3 units, was started and given 3 times that day, and each succeeding day for 12 days. Beginning with the first dose his condition improved, and continued to do so. On the 12th day of Iletin, his 20th day of life, he was vigorously draining his mother's breast in 10 minutes time, at 3 hour intervals.

At birth Claude weighed 5 pounds 14 ounces. The day Iletin was started he weighed 5 pounds 6 ounces.

The 12th day of Iletin he weighed 6 pounds 8 ounces and on Feb. 1 weighed 8 pounds 6 ounces.

Case 4. Malnutrition. Richard; aged 2½ years.

Admitted to the Methodist Hospital, Dec. 23, 1923, with an acute bronchitis. This subsided in 3 days and because of his poorly nourished condition Iletin treatment was commenced Dec. 31, 1923. On that day he weighed 17 pounds 5 ounces, and took 1,200 calories of food. On Jan. 22, 1924, 22 days later, Iletin was discontinued, and he was discharged from the hospital weighing 18 pounds 15 ounces, and on a 1,800 calorie diet. On March 19, 1924, he weighed 21 pounds 4 ounces.

Case 5. Malnutrition. Lawrence; aged 2 years.

Admitted to the Methodist Hospital Feb. 5, 1924, weighing 20 pounds 4 ounces. Iletin, 5 units three times daily, was started Feb. 6, at which time his 24 hour food intake totalled 1,200 calories. Twenty days later he was taking 2,000 calories of food, and weighed 21 pounds 12 ounces.

Case 6. Malnutrition with chronic bronchitis. Jesse; aged 2½ years.

Admitted to the Methodist Hospital, Jan. 1, 1924, undernourished, with a history of having had bronchitis almost continuously for the past six months. His weight was 24 pounds 10 ounces. Jan. 3, 1924, he commenced taking 5 units of Iletin, 3 times daily. Twenty-five days later, on Jan. 27, 1924, Iletin was discontinued, and he was discharged from the hospital weighing 26 pounds 12 ounces. When Iletin treatment was started he was getting 1,500 calories of food daily. After one week of Iletin he took 2,200 calories each 24 hours, until discharged from the hospital. On March 2, 1924, 35 days after he left the hospital, he weighed 28 pounds, and his mother stated that there was nothing wrong with his health or appetite.

Case 7. Malnutrition with chronic bronchitis. Mary; aged 10 years.

Entered the Methodist Hospital, Dec. 26, 1923, with a general diagnosis of malnutrition. Clinical and x-ray examinations also showed chronic frontal sinus, and hilus gland infections. She weighed 79 pounds and was 55 inches in height. A chronic cough and a daily low grade temperature coincided with the x-ray reports.

She was given Iletin, 5 units, daily for 22 days. During her 30 day stay in the hospital, and since she returned home she has been receiving a 2,000 calorie diet. March 11, 1924, she had gained 3 inches in height, and 5½ pounds in weight. She has had no fever since leaving the hospital and her general condition has improved quite satisfactorily.

Case 8. Malnutrition with chronic bronchitis. Robert; aged 7 years.

This child gives a history of severe attacks of bronchitis of 3 to 5 days duration at 2 to 4 week intervals for the last 2 years. Practically every medical and surgical means known has been used to improve this boy's health during the past two years. Nothing, however, benefited his bronchitis, or his malnourished condition.

On Feb. 11, 1924, we started giving him Iletin, 5

units, three times daily, and a 2,000 calorie diet. While getting Iletin he received, and is still eating and wanting his 2,000 calorie diet. Before this treatment was started he weighed 52 pounds. Seven weeks later he weighed 57 pounds, and his general health has markedly improved. He has had no severe bronchitis, and he now coughs only occasionally.

Case 9. Acute pulmonary tuberculosis. Margaret; aged 7 years.

Margaret was brought by her parents to the writer's office, Aug. 25, 1923, for a physical examination, to determine whether her physical condition would warrant her starting to school. This forethought of the parents proved quite worth while, because the physical examination, with later laboratory and clinical observation, gave positive evidence of tuberculosis of the hiluses and apices of both lungs.

She was put to bed at once and placed under favorable hygienic conditions. Her resistance seemed low, and she failed to respond to the treatment. During the next four months, she was seen by 3 consultants. However, she continued to have a daily rise in temperature, and failed to gain in strength, and on Feb. 25, 1924, six months later, her condition had shown little, if any, improvement.

On Feb. 25, 1924, Iletin, 5 units daily, and a 2,000 calorie diet was started. On that day she weighed 48 pounds. On March 27, 32 days later, she had gained 6 pounds in weight, she had had no fever for 16 days, and her strength and general condition as a whole had improved quite noticeably.

Case 10. Marasmus with hare-lip and cleft palate. Dorothy; aged 6 weeks.

Dorothy was born with a hare-lip and cleft palate. Her birth weight was 7 pounds. She entered the Methodist Hospital six weeks later on March 6, 1924, weighing 6 pounds 3 ounces. Iletin, 3 units, 3 times daily was started. April 1 she weighed 8 pounds, a gain of 1 pound 13 ounces in 25 days.

Case 11. Acute nephritis with acidosis. Harold; aged 5 years.

Harold developed acute nephritis following scarlet fever. He was taken to the Methodist Hospital on the 5th day with a temperature of 104 deg. F. and pulse 148. He was very toxic. He vomited at frequent intervals, and had a general edema. His urine was loaded with albumin, pus, blood, casts and diacetic acid. His condition grew gradually worse. On his 6th day in the hospital, Dec. 15, 1923, at 12 A. M. he was given 5 units of Iletin followed 20 minutes later with one-half ounce of corn syrup. His temperature then was 102 deg. F., his pulse 120; at 2 P. M. his temperature was 98 deg. F. and his pulse 120. The Iletin was repeated at 6 P. M., also the corn syrup, 20 minutes later.

The following morning at 6 A. M. with his temperature 102 deg. F., 5 units of Iletin was again given, followed by corn syrup. Two hours later his temperature was 98 deg. F. In another hour it had risen and at 10 A. M. it was 102 deg. F. and the child was becoming comatose. One-half ounce of corn syrup was given to him. The temperature started to fall in a

few minutes and at 12 A. M. the temperature and pulse were both normal. No more Iletin was given, and the child has had the usual long convalescence following acute nephritis.

Case 12. Acute nephritis with acidosis. Milton; aged 2 years.

Jan. 14, 1924, Milton was admitted to the hospital with a temperature of 105 deg. F. and a diagnosis of acute nephritis following acute tonsillitis. His condition also grew worse under the usual treatment. On Jan. 20 Iletin, 5 units 3 times daily with one-half ounce of corn syrup 20 minutes later, was started and continued. Before the first dose of Iletin was given the child's temperature was 104 deg. F. This temperature went down, and the next morning it was normal, and has remained so. It was decided to continue the use of Iletin and observe results. Some of the interesting ones were as follows: 24 hours after Iletin was started the urine was and has since been albumin free; since the 13th day the urine has also been free of pus, blood, and casts, and his general condition improved quite markedly. The first day of Iletin his food intake was 200 calories, the 7th day 800, 9th day 1,000, 13th day 1,200, 15th day 1,400, 17th day 1,600, 21st day 1,800, and on the 29th day of Iletin and every day since he has taken at least 2,000 calories of food. On the first day of Iletin, his weight was 27 pounds 8 ounces, a gain of 3 pounds. This child accomplished with Iletin in 5 weeks, what requires most children in like circumstances, without Iletin, 3 or 4 months.

Summary:

Iletin was given with apparently good results to twelve non-diabetic children under the following conditions:

Two cases of malnutrition.

Two cases of malnutrition with tuberculosis.

Three cases of malnutrition with chronic bronchitis.

One case of marasmus.

One case of acute inanition.

Two cases of acute nephritis.

One normal infant.

Because of the potency of Iletin it was given only under the supervision of trained nurses.

THE QUESTION OF FULL TIME CLINICAL TEACHERS IN MEDICAL EDUCATION*

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The medical profession exists mainly for the purpose of healing the sick, prolonging life and alleviating suffering. An army exists for the sake of fighting. The commanding general finds

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it necessary to detail a certain number of the men under his command to do other necessary work, such as teaching in training schools, taking charge of commissary department and so on. It is necessary for a certain number of the medical profession to devote their time to work other than treating the sick; some as health officers try to prevent disease, etc., others by research try to advance medical science. But the object of all the army is to win the battles in which it may engage. The object of the whole medical profession is to combat disease.

Hippocrates bound his disciples to teach what they had learned from him and from experience. And from that time to this every reputable member of the profession has been willing to teach anything he knows to those who are entering the profession or are already members of it. In the colonial days of this country, a medical degree could not be obtained without crossing the Atlantic. This limited to the sons of the wealthy the opportunity of entering the profession in the proper way. It also caused many men to practice without an adequate training.

Movements to elevate the standards of medical education and practice have always been initiated by members of the profession. Shortly before the revolution a group of doctors in Philadelphia and another group in New York each created a Medical School. From the beginning of the 19th century till near its close the number of Medical Colleges increased and multiplied with great rapidity. They were owned and financed by their faculties. Their only source of income was the tuition fees paid by the students. The very life of the college depended upon its having a sufficient number of students to keep it going; therefore, the faculty was always on the lookout for new members that would attract students. Three things are necessary for a man to be attractive to students. First, he must have a reputation in the community in which he lives; second, he must know the subject he teaches; third, he must be able to present it in such a way that the student can grasp it, and have his interest excited, and be stimulated to further study. This method of selecting teachers and the competition to which they were afterward subjected developed many capable and a few great teachers. To the credit of the teachers of this era my observation was that although they were very busy

practitioners they seldom failed to meet classes promptly.

The privately owned medical college had its disadvantages, one of which was that students were admitted without sufficient preliminary education; another was that they were graduated without having attained as full a knowledge of medicine as should have been required of them. When the laboratories became such an important part of the curriculum it was found necessary to employ men to run them who could devote all their time to the laboratory and to teaching. This had two effects—one was to create a set of teachers who were not practicing physicians and the other was to greatly increase the expenses of maintaining a medical college. This led the colleges to seek endowment; but it was soon seen that no one was going to endow a college which was privately owned, and which the public believed was run for profit. Something must be done if they were to survive. Any port in a storm. Each college sought an existing university and laid the financial burden on the shoulders of its board of trustees. This necessarily caused the profession to lose control of medical education. Endowments were to be had, but they were only to be had if the colleges acceded to the demands of those in charge of the foundations. These foundations were in charge of men who were not familiar with the traditions of the medical profession. By some mental process, which I have never been able to understand, they came to the conclusion that if a full time teacher was good in the laboratories, he would also be good in the practical branches. Possibly this was on the theory that if a grain of calomel is good for a patient, a dram might be more efficacious. Be that as it may, they commenced to insist on full time men in practical branches. That this has not worked as well as they expected, I think even its originators will now admit. There is trouble, trouble everywhere! The faculties are not in sympathetic touch with the rank and file of the profession. Alumni have lost their affection for their Alma Mater.

What is the cause of the discontent? First and foremost, no two people seem to agree on what is meant by a full time teacher. Some of the teachers evidently agree with Edison that the work day of the future will be four hours. Like the man who stood up so straight he leaned backward they are so up to date that they work by the

rules of the future. Some institutions want full time men but have not the money to pay them attractive salaries. So they are hired as full time men with the privilege of practicing "some." It is said that the difference between a "bellyache and appendicitis is five hundred dollars." The difference between a practitioner who teaches and a teacher who practices is about ten thousand dollars—per year.

Other institutions pay their full time professor of surgery a fixed salary and have him take care of private cases for which the institution collects the fees. Talk of the evil of splitting fees! That isn't splitting them. It is peeling and coring them. But this full time professor may not be as big a fool as he seems. Especially if he is in the bloom of youth and has vigorous health. There is a seed time and a harvest. To get the money back that it pays him together with a German 6 per cent. on the investment, the institution exploits him. He is advertised by reading notices in the daily papers and by word of mouth. The two best means of advertising yet devised. If after five years of this seed time he resigns to reap his harvest, he will find it abundant and awaiting his hand. But let us leave these so-called full time men to the pursuit of their happiness. They are a hybrid breed like the Kentucky mule—"without pride of ancestry or hope of posterity."

If the institution has the money to pay salary enough to a surgeon or a physician so that he does not have to do any private practice, is that better for the students than to have teachers who do practice but are willing to devote three to six hours a week to teaching? This is the real question. My personal answer is, it depends entirely on the man; a good teacher is a good teacher regardless of how he uses the time he spends outside the class room or ward. But possibly I am prejudiced. Let us try to marshal the arguments on each side of the question fairly. It is claimed for the full time man:

1st. That he is especially prepared for teaching.

2nd. That this preparation has taught him the art of pedagogy.

3rd. That he has leisure for reading and research.

4th. That he will not be prevented from meeting his classes by the exigencies of private practice.

For the practitioner that teaches I claim:

1st. That he usually has acquired the art of teaching by practice. He began his teaching by work in an outdoor clinic, serving faithfully and well; in due time he was promoted to be a bedside instructor. Then showing more talent for teaching than his associates and a vacancy occurring, he was made Clinical Professor. He is not the product of a hot house.

2nd. Having in the meantime been doing private practice and some consultation work he knows medicine or surgery as it is practiced. Not only as it is practiced in the hospital ward but as it is practiced in the humble home and the magnificent mansion. He sees the shortcomings of the average practitioner and tries to remedy them in classes he is teaching.

3rd. Unless he has a heart of stone he has become imbued with the idea of service to mankind. He strives to improve himself that he may render better service both to the sick and his students. He learns there is much work for physicians in cases that cannot be cured by way of inspiring hope and alleviating suffering.

If my arguments have been as fairly stated as I tried to have them, I think you will agree with me that both the full time man and the man who practices may be useful, but if only one can be had, the practitioner should be chosen. Let me elaborate on some of the points I have tried to make.

The skillful physician does not treat typhoid fever or cancer; he treats that patient suffering from one of these diseases. Experience teaches us every day that the mental attitude of the patient has much to do with the treatment of his disease. Environment has much to do with the mental attitude. Many times it requires more skill to handle the relatives than it does the patient. *Controlling the patient's mental attitude is, therefore, part of the practice of medicine.* Human beings differ just as much as animals. Every one can recognize the difference between a draft horse and a thoroughbred, as to their respective nervous systems. The teamster strikes the draft horse with the black snake whip—the horse shakes his ears, switches his tail, pulls a little harder, and in a little while the blow is forgotten. The jockey strikes the thoroughbred and a brain storm results. There is almost as much difference between the day laborer and the pampered child of fortune. In private prac-

tice a physician comes into contact with both types, and with every type between them. In our hospitals the patients are for the most part phlegmatic, and the necessity of treating their minds as well as their bodies is not so great. The attitude of the patient toward his physician is very different in the man who selects his own physician and intends paying him for his services from that of the patient who must accept the services of a physician because he has no choice in the matter.

The majority of medical students are going to engage in private practice. They should have the viewpoint of the broad-minded practitioner. The full time man, not having this viewpoint, of course, cannot teach it. The practitioner who teaches imparts it unconsciously. There are certain qualities that successful teachers must have. No one is endowed with these qualities simply because he stops practicing and becomes a full time teacher. The doctor must be sure of himself—he must make a diagnosis instead of having an impression, he must be able to state in a clear, cheerful voice how he arrived at his diagnosis. He must impress students as being keen, alert, enthusiastic and honest. Honest, not only with the patient and with the student, but honest with himself. He must be optimistic as to the future of the profession. The successful man in private practice requires these same qualities. They appeal to the laity as well as to the student. Self-confidence, quick judgment in case of an emergency, and a pleasing manner are great helps in securing a large clientele.

I have frequently said that if you can secure the services of an exceptionally good teacher for only one hour a month it is quite worth while to do so. Another reason why the practitioner is valuable as a teacher is that he makes his permanent home in the city in which he works. Full time men are to a great extent birds of passage ever ready to answer to the beckoning hand that offers more gold and more prestige. Their interest in the school which they serve cannot be as deep as that of the permanent resident.

One other point to which I wish to call your attention is that the most epoch-making discoveries of medicine and surgery have not been made by full time men. Jenner did not discover the value of vaccination in the laboratory; Lister was a practicing surgeon when he first applied

the rules of antisepsis and asepsis. Marion Sims was a practitioner when he first cured vesicovaginal fistula. Ephraim McDowell was a practitioner of medicine when he did his first ovariectomy. Koch was a practicing doctor when he discovered the bacillus of tuberculosis. Fitz was a practitioner in Boston when he recognized and described appendicitis. Anesthesia was discovered by a practicing dentist. Surely, a creditable record for practitioners.

Who have been the surgeons that have attracted the most attention in the world in the last fifty years? When I was a medical student all eyes were turned toward England and Lawson Tait was easily the most talked of surgeon in the world. Then August Martin of Berlin was the man every young surgeon wanted to see work. Then a group of American surgeons developed whose fame became world-wide. To mention a few of them: Howard Kelly, of Baltimore; McBurney and Morris, of New York; Senn and Murphy, of Chicago, and Morris Richardson, of Boston. Now we have Crile, of Cleveland; Deaver, of Philadelphia, and the Mayos. These men have obeyed the Hippocratic injunction and taught. The doors of their operating rooms have always swung wide open to admit any reputable member of the profession. The level of average surgery in America has been elevated by their precept and example. Their teaching is largely post-graduate. Humbler members of the profession with skill and experience as teachers of undergraduates have been deprived of the opportunity to use their talents in later years because the full time man wanted the student to have no opportunity to compare his methods with those of others. This is unfair to the student and unfair to the men who have prepared themselves for teaching.

Many years ago Edinburgh adopted the plan of extra-mural teaching. If the student preferred the work of some surgeon or physician at some hospital other than the one connected with the university, he could take his work with his favorite and receive due credit for it. Germany afterward also adopted the plan and became the Mecca for medical students from all parts of the world. In a class of sixteen at Martin's clinic there were representatives of England, France, Italy, Germany and five different states of the Union. He was not the Geheimrat. His was extra-mural teaching. Some such plan will come

into vogue in the United States in the not distant future. Fifty years ago nearly every medical student had a preceptor. From the preceptor he acquired the spirit of medicine and learned of its noble traditions. The preceptor has gone. Some one should take his place. Some one of whom it may be said, "Out of the fullness of the heart the mouth speaketh." It cannot be the full time man.

It is very essential for the future of the profession that these traditions be imparted to the undergraduate. Many of the best members of the profession are shocked at the tendency to commercialism that has permeated the ranks of the profession in recent years. It has been my observation that students in the last ten years are taught by some one to look down on the man who makes his living by being a conscientious member of the profession, practicing among ordinary people for ordinary fees. In former years every spring a number of senior students came for advice as to where they should locate after graduation. Not so many come now and those who do want a job, not a location. They are willing to do almost anything except to go to some locality where their services are needed and earn an honest living by practicing their profession.

We are living custodians of medicine, its science, its art, its spirit, its traditions. Let us take every care that it be passed on to those who come after, unharmed, while in our keeping.

INFANTILE ECZEMA AND ITS MANAGEMENT*

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A sharp controversy exists both as to the cause of infantile eczema and its treatment. Certain schools believe that the diet is the prime factor in the cause and control of this condition. Others, while conceding that the diet has some weight and influence, insist that the paramount factor is individual susceptibility plus local irritation.

Etiology:

A. Predisposing causes:

1. Eczema forms about 25 per cent of skin disorders in infancy. It diminishes in frequency up to the age of 16 or 17, and increases again in adult life.

2. Heredity, apparently, is not a significant

etiological factor. The infant is not born with eczema, and the occurrence of the disease in the child when either of the parents suffer from it is merely a coincidence.

3. Climate, apparently, has some influence, since infantile eczema occurs most frequently in the winter months.

B. Exciting causes:

1. Local infection has been advanced as a cause of eczema. The "morococcus" of Unna, by which he claimed to have caused eczema, was found to be a staphylococcus of low virulence, commonly found on the skin, and the lesions produced thereby were those of impetigo and not eczema. Furthermore, since the vesicles in eczema are sterile and the lesions are not auto-inoculable or contagious, it is difficult to accept the theory of local parasitic infection.

2. The theory that eczema is a nervous manifestation is based upon its frequent occurrence in patients of a neurotic type, and its apparent relation to various forms of nervous strain such as overwork, worry and mental anxiety. This, however, is refuted by the facts that eczema is relatively more frequent in infancy than in adult life, and that no actual changes have been found in the peripheral nerves supplying the affected skin.

3. The present view of individual susceptibility plus local irritation seems to be well accepted by many authorities. That individual susceptibility is a factor as poison ivy, primrose, and various trade irritants in adults. A similar susceptibility, undoubtedly, is present in infants. Once the initial lesion is established, it is kept up by constant rubbing and scratching. A case well illustrating this individual susceptibility to infantile eczema was brought to my attention while associated with the late Dr. E. A. Fischkin. One of a pair of twin babies who were nursed by the mother and received identical nourishment presented a typical case of eczema, whereas the other was entirely clear.

Treatment:

In order to carry out the treatment successfully definite instructions should be given to the mother or nurse in charge of the case.

1. No soap or water should touch the eczematized skin, but the unaffected portions of the body may be bathed daily with tepid starch water.

2. If the baby shows any desire to scratch, a card-board splint, well-padded, should be put

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around each arm. Although this procedure still allows the baby to rub its face, it is not as injurious as scratching.

3. Care must be taken that the baby is not too warmly dressed. Overheating congests the skin and consequently increases the itching.

4. As infantile eczema occurs most often in the winter, the child should not be taken outdoors, but should be kept in a ventilated room and be protected from draughts by means of a screen.

5. In severe and persistent cases a mask may be necessary. Instructions for making one should be given to the mother or nurse in charge.

6. Night and morning the following pastes are to be used: Naftalan, 10 to 30 per cent. This is a distillation product from crude nafta which is found in the Caucasian Mountains and is refined in Germany. It is a thick fluid of dark green color, and contains from $2\frac{1}{2}$ to 4 per cent of soap. When mixed with powders it produces a paste of any desired consistency. In preparing the naftalan paste six parts of zinc oxide are mixed with ten parts of petrolatum; to this is then added six parts of starch mixed with ten parts of petrolatum; the product is well incorporated with four parts of naftalan, and finally two per cent of ichtalyol is added. (Note that in preparing the paste the active ingredients are added last.) This mixture will approximately fill a one-ounce jar, since a powder will add only about one-third of its weight in actual volume. It is essential that the ingredients be well incorporated by thorough rubbing up. In no other branch of medicine is the skillful compounding of prescriptions of so great importance as in dermatology. A rough ointment containing the mildest drugs will irritate instead of relieve an inflammatory condition of the skin.

The following histories will illustrate the value of naftalan:

Case 1. Baby, seven months old, referred to us by Dr. Horwitz, January 29, 1923. The child presented typical lesions of infantile eczema of six months duration, affecting scalp, face and trunk. Lesions consisted of weeping, ill-defined, erythematous patches, covered with a thick crust, and especially marked on the scalp. Mother was given the instructions previously outlined and the naftalan paste was applied morning and night. For scalp: Sulphur, two per cent., acidi salicylici and menthol aa $\frac{1}{4}$ per cent.

February 12, I showed this case at a clinic held at the Norwegian-American Hospital, and there was such a marked improvement that one of the doctors

who had not heard the history asked for the diagnosis on the case. Slight infiltration persisting, a stimulating drug was indicated. We put the child on crude coal tar. (I shall speak of crude coal tar presently.)

April 10, 1923, patient was discharged. There has been no relapse since.

Case 2. Baby, eight months old, referred to us by Dr. Worsley of Downers Grove. Affection was limited to face and scalp. Lesion on face was of eczema rubrum type. The skin was highly inflamed, intensely red, and the horny layer was destroyed. Dr. Fischkin first saw this case January 9, 1923, and prescribed naftalan 10 per cent. The child was seen three times, and has completely recovered. Dr. Fischkin also treated an elder sister three years ago for the same condition; this girl shows no signs of eczema at present.

Case 3. Boy, aged fifteen months, whose forehead, cheeks, and neck showed ill defined patches covered with fine pustules and crusts. April 9, 1923, naftalan paste was given. Lesions all cleared up within a few days.

January 10, 1924, eight months after treatment, child had a relapse. I again put this child on the naftalan paste, and on January 24, there was marked improvement.

Case 4. Baby, six months old, had affection for four months. Crusting lesions on scalp and moist, red, patches on face. February 20, 1923, a 30 per cent. naftalan paste was prescribed.

February 23, three days later, the condition was aggravated; there was a marked dermatitis and some edema of the eyelids. I wish to call your attention to the fact that the present naftalan on the market is not the same product as that sold before the war. While a 50 per cent. naftalan from the Caucasian Mountains was very mild, I do not advise you to use more than a 20 per cent. of the naftalan now on the market. In this case a 30 per cent. caused a dermatitis. Child was given an astringent of liquor aluminum acetate. February 27, dermatitis and edema were gone. A 10 per cent. naftalan was applied.

March 15, there was considerable improvement.

Case 5. Baby, four months old, referred to me by Dr. Voegelé. Child showed typical lesions of infantile eczema affecting scalp, face and neck. December 30, 1923, instructions were given as previously outlined, with naftalan for the face. For the scalp: Acidi salicylici $\frac{1}{2}$ per cent., sulphur 1 per cent., and unguentum aquae rosae and petrolatum of each q. s. to make 30.

January 13, 1924, the mother called me up and informed me that the baby was entirely well.

Naftalan is used first in all cases because it is a safer drug, requires no special precautions, does not deteriorate readily, and the lots do not vary. In cases that do not respond to naftalan we resort to crude coal tar paste, which was recently introduced by White¹ of Boston. Crude

1. Charles J. White, M.D.: Infantile Eczema and Examination of the Stools. Archives of Dermatology and Syphilology. Volume 7—Page 50, Jan., 1923.

coal tar is a thick tarry liquid formed in the distillation of coal gas. The following histories will illustrate its value; also, some of its disadvantages:

Case 6. Baby, two and one-half years old; affection was generalized since birth. March 28, 1923, crude coal tar paste for face and naftalan for body. April 5, lesions were almost cured; there was only a slight erythema.

I was not able to follow this case, but as they sent us another case of infantile eczema I take it for granted that they were pleased with the treatment.

Case 7. Boy, six months old, developed eczema two weeks after birth. Child was breast fed the first three months, and then put on artificial feeding. Ten weeks of careful supervision of the diet showed no improvement in the lesions. November 20, 1923, crude coal tar paste was prescribed.

November 27, at the end of seven days use of crude coal tar, only a slight erythema remained.

Case 8. Girl, eight months old, developed eczema at the age of two months. The lesions consisted of numerous ill-defined patches practically covering the entire face. There were also numerous fine papules scattered over the hands and legs. January 30, 1924, naftalan paste was prescribed.

February 2, there was slight improvement. Crude coal tar paste was substituted. February 5, a severe dermatitis resulted with edema of eyelids.

Case 9. A boy, aged six months, who was breast fed until three weeks old, developed eczema immediately after weaning, and it had continued. The lesions on the face were red, infiltrated, and rather moist. A number of isolated fine papular lesions were scattered over the chest and abdomen. March 3, 1923, crude coal tar paste was prescribed.

Two weeks later the child showed no desire to scratch and the skin appeared practically well.

There is no doubt that the addition of crude coal tar in the treatment of infantile eczema is of great value. It must, however, be administered very cautiously for not only is it difficult to prepare a good black paste, but what is more distressing, some lots are quite irritating and produce a severe dermatitis, as described in Case 8. In prescribing the crude coal tar paste it must be combined with a metal to prevent the extraction of the crude oil from the tar. If this oil is separated from the crude coal tar, we have an irritating olive green mass which may produce a severe dermatitis, large bullae, and possibly toxic manifestations. Extreme caution must, therefore, be taken in the preparation of the paste. Two parts of crude coal tar are mixed with the same amount of zinc oxide; this should be allowed to stand twelve to twenty-four hours, and then incorporated gradually with a mixture

of sixteen parts each of starch and petrolatum previously well rubbed up in a separate mortar. When properly prepared, I have found this ointment of great value, especially in those cases which are chronic and show considerable infiltration.

Those cases not responding to treatment and persisting after the age of two years, we have been very successful in clearing up with x-ray treatments. One-eighth unit x-ray is given every five days to the affected areas. In conjunction with these treatments, a naftalan paste, or a two per cent. ichthyol paste is applied twice daily. The following histories will illustrate the value of x-ray treatments:

Case 10. Boy, three years old, had eczema for two and one-half years. The lesions were limited to the face and upper extremities, and consisted of a blotchy papular eruption with some scaling. The right arm showed patches of infiltration. For two and one-half years the lesions persisted without much improvement under the usual dietetic regulations, and the application of various ointments.

November 10, 1923, the child was given $\frac{1}{8}$ unit x-ray. This was repeated at five-day intervals. After four such treatments the lesions cleared up entirely.

Case 11. Girl, twelve years old, had eczema since infancy with periods of remission and exacerbation, but at no time was she entirely clear. Child was given two per cent. ichthyol in fifty per cent. Lassar's paste, and $\frac{1}{8}$ unit x-ray every week for six weeks. The lesions cleared up entirely.

One year after treatment there was a slight relapse. A second course of six x-ray treatments was given with complete disappearance of lesions, and there has been no relapse since.

Case 12. Girl, five years old, had eczema for two and one-half years affecting the chest, back of neck, and cubital fossae. The lesions consisted of ill defined dull red patches made up of small papules, excoriations, blood crusts, and fine adherent scales.

January 18, 1924, $\frac{1}{8}$ unit x-ray was given with naftalan paste. At five-day intervals three x-ray treatments were given. The mother told me that this is the first time that the child has ever been entirely clear during the winter months.

In conclusion I might state that while the correction of the diet is of value, as in most dermatoses, it is not the principal treatment. If instructions are properly carried out, the pastes as previously outlined will well manage the majority of cases. Lesions persisting after two years of age can usually be managed with $\frac{1}{8}$ unit of x-ray every five days in conjunction with naftalan, or two per cent ichthyol paste.

AN IMPORTANT SUPREME COURT DECISION*

I. S. TROSTLER, M. D., F. A. C. R., F. A. C. P.
CHICAGO

The Illinois Supreme Court recently rendered a decision that should be of marked interest to the medical profession, and is of decided importance to your patients. In a personal injury case (*Roscoe Stevens vs. The Illinois Central Railroad Company*) which was appealed from the District and Appellate courts wherein judgment in the trial court was rendered for damages in the amount of \$1,900.00, the judgment was reversed and the case remanded for retrial in the Madison County Court.

That portion of the Supreme Court's opinion to which I want to direct your special attention is: "The most serious error committed by the trial court in the admission of incompetent evidence was the admission of a so-called x-ray film which purported to show the condition of the plaintiff's skull. A dentist identified a film produced in court as one prepared by him, and testified that it was an x-ray picture of the plaintiff's skull. Although a skiagraph produced by x-rays cannot be verified as a true representation of the subject in the same way as a picture made by a camera, the rule in regard to the use of ordinary photographs on the trial of a cause applies to skiagraphs of the internal structure and condition of the human body taken by the aid of x-rays, and such a skiagraph when verified by proof that it is a true representation is admissible in evidence. Like other photographs they cannot be received as evidence until proper proof of their correctness and accuracy is produced. (*Chicago City Railway Co. vs. Smith*, 226 Ill. 178; *Chicago and Joliet Electric Railway Co. vs. Spence*, 213 Ill. 220). It must be established by competent evidence that the picture correctly portrays the condition which it purports to represent before it has any place in the case. Some witness must be able to testify that the picture offered in evidence shows accurately what the witness saw when he looked into the body with the fluoroscope, or he must be able to say that he is skilled in the use of the x-ray machine and in taking and developing x-ray pictures, and that he took the picture offered in evidence with the body in a certain

position (describing it) with a machine which he knew to be in good working condition and accurate, and that from his experience he was able to say that the picture produced by the machine was an accurate picture of the internal condition of the body. These methods of establishing the accuracy of the picture are not exclusive, but whatever method is used its accuracy must be established before it is admitted. (*Ligon vs. Allen*, 157 Ky. O 101, 162 S. W. 536, 51 L. R. A. (N. S.) 842.) Applying these well established rules to the facts in this case it is apparent that the plaintiff failed to establish the preliminary requirements necessary to make the x-ray film admissible. The doctor did not state that he saw the condition of plaintiff's skull, nor that the film correctly represented this condition, nor did he state how the film was taken, nor that he had ever had any previous experience whatever with the x-ray machine, nor that he had ever made an x-ray photograph, nor that he knew anything about how they should be made, nor that the x-ray machine used by him was accurate, nor that it was in working condition at the time the exposure was made, nor that he had ever checked a picture made by his machine with the condition seen by his eye with the use of the fluoroscope to determine whether the machine accurately portrayed the internal condition of the part of the body under investigation." The foregoing quotation is only a part of this important decision, but it is the part that I want to impress upon you.

Here is a decision from our own Supreme Court which verifies and backs up what radiologists have been trying for a long time to impress upon those referring x-ray work—that expert radiologists, and only graduates in medicine who can qualify as such should make radiographic examinations. This is for your own protection as well as for the protection of your patients. Similar decisions have been rendered by Supreme Courts in other states, but this one in our own state is so near home that it should be given more heed and attention.

For the past fifteen years I have been repeating to the medical profession that you, as physicians, must recognize that much more than a knowledge of how to throw the switches on x-ray apparatus, or to develop a plate or film is necessary in the diagnosis and treatments of disease by means of the x-rays. X-ray technic

*Read before the Chicago Medical Society, April 16, 1924.

is not as simple as some of the manufacturers of the apparatus try to lead us to believe in their advertisements, but requires an extensive and painstaking course of training. In diagnosis and therapy as much preparation is necessary as in any of the medical specialties, and more than in some of them. Aside from the danger incurred by the patient from errors in the handling of the apparatus there is a great chance for error in the diagnosis made by technicians (and they do make diagnoses and even appear in court and pose as experts).

In these days when suits for malpractice are so frequently brought, physicians must realize that for their own protection they should only refer their work to amply competent ethical physicians, whether it be pathological, surgical, dermatological, or radiological. If you will do this you will not only surround yourself with all the possible safeguards and protection against error, but will receive ethical treatment and your patients will be properly handled. If you will do this you will be less liable to have malpractice proceedings brought against you.

Radiologists in order to be able to render this service in a strictly ethical and satisfactory manner must be graduates in medicine, as a knowledge of anatomy, physiology, and other branches of medicine is absolutely essential to the correct making and interpretation of roentgen findings. The ability to make a good film is a less necessary qualification and may be done by technicians, but even this should be directed and supervised by a physician well informed in radiology. I repeat, technicians may make good roentgenograms, but should not under any conditions be permitted to make diagnoses. I ask you in all seriousness, would you accept the diagnosis of a technician if the patient in the case were your mother, wife, or daughter? Would you permit a technician to prescribe a drug for your mother, wife, or daughter? Would you permit that same technician to prescribe and administer x-ray treatment to that same mother, wife, or daughter? Think it over, take it home, apply it to yourself or your own family and you will surely come to the conclusion that x-ray diagnosis and therapy should be in the hands of physicians only.

25 E. Washington St.

CLINICAL EFFECTS OF SO-CALLED MOONSHINE LIQUORS*

FRANCIS J. GERTY, S.B., M.D.

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CHICAGO

Those who have treated any considerable number of alcoholic patients know that the type of poisoning produced by present-day liquors is somewhat different from that seen in pre-prohibition days. This has become a matter of common knowledge. Nevertheless, we cannot consider the sort of poisoning caused by the illicit liquors now in use as an entirely new and definite clinical entity. We must consider it as alcoholism, though of an aberrant type. Popularly it is known as moonshine poisoning.

Strictly speaking, moonshine liquors are illicit distillation products of fermented mash prepared locally or domestically. Doran and Boyer,¹ on a basis of 75,000 examinations, report that, due to poor control of fermentation, faulty distilling methods, and lack of aging, the raw whiskey, or moonshine, now produced has a high content of aldehydes and particularly of acetaldehyde. "Acetaldehyde is a rapid intoxicant inducing profound stupor and deleterious after effects" (Holland²). Contrary to popular belief, fusel oil and the higher alcohols are not responsible for the high toxicity. Old whiskey also contains these, but polymerization of the aldehydes has caused detoxication. Aldehydes, and especially acetaldehyde, are then the characteristic toxic substances of moonshine whiskey. From questioning patients in the hospital it appears that nearly all of them have used some of this raw, illicitly distilled liquor.

Besides true moonshine liquor, there are other beverages containing toxic substances. Wood alcohol, denatured alcohol, synthetic gin, toilet waters, tincture of ginger, extracts, and proprietary remedies are in the list. One man who came under my observation had used a mixture of methyl alcohol, hydrochloric acid, and Turkey red dye. Another drank the liquid expressed from a cake of "canned heat." Several times we have taken from patients admitted to the Psy-

*Read before the Food and Drug Section of the American Public Health Association at the Fifty-second Annual Meeting in Boston, Massachusetts, October 9, 1923.

1. Doran, J. E. and Boyer, G. F. "Character of Moonshine Liquor." Industrial and Chemical Division, Prohibition Unit, Internal Revenue Bureau. Unpublished. Since published, *Am. J. of Pub. Health*, Oct., 1923.

2. Holland. "Medical Chemistry and Toxicology."

chopathic Hospital half-emptied bottles of crude, milky wood alcohol such as painters use.

Finally, in considering the type of beverages used, we must not forget that even "good" whiskey has its toxic effects. All of the spirituous beverages, whether or not they contain other poisons, are capable, purely through their alcoholic content, of doing great damage when used to excess. Both good liquor and bad liquor is consumed for the effect of the alcohol.

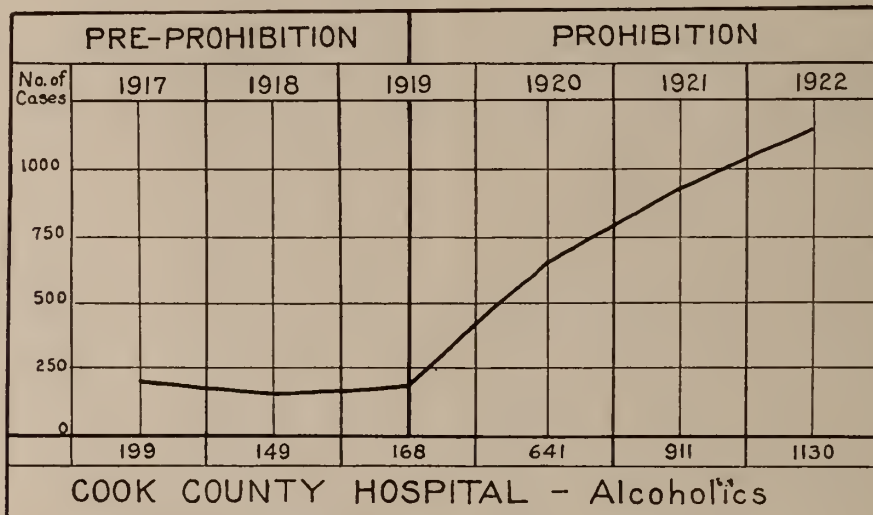
Of the patient who is brought to the doctor for treatment, and more particularly of the patient who is in such case that he must go to the hospital, it is true that we do not know just what he has been drinking, except that it was alcoholic.

find alcohol chemically. Other poisons are even more likely to escape detection.

Because of these many factors we must broaden our view of so-called moonshine poisoning to include nearly all alcoholism of clinical importance that we now find. Moonshine poisoning, as here considered, is, then, alcoholism of a modified or aberrant type. It is usually a combination of alcohol poisoning and poisoning by aldehydes and other toxic substances.

The present study concerns itself with alcoholism as seen in the Cook County Hospital and the Cook County Psychopathic Hospital. It is considered under these three headings: (1) the general morbidity and mortality, (2) clinical

Figure 1.



At the beginning of a spree a man may take only good whiskey. Once under the effect of this, his judgment may be so weakened that he will try almost anything. The chance of obtaining rank liquor has never been so great as it is now. From the sort of history we are usually able to obtain we cannot say whether the patient is poisoned with moonshine or not. We must be satisfied to call it alcoholism.

Chemical analysis at the hospital, as a clinical aid, is unsatisfactory. We usually have no specimens of what the patient has been using. Gastric contents, urine, blood, and organs removed post-mortem do not yield very valuable results in the way of positive chemical findings. Alcohol will be found if it has been ingested recently enough, and it is always tested for. In many cases of bona fide alcoholism we are unable to

observations on the present types of symptoms, (3) pathology.

THE MORBIDITY AND MORTALITY

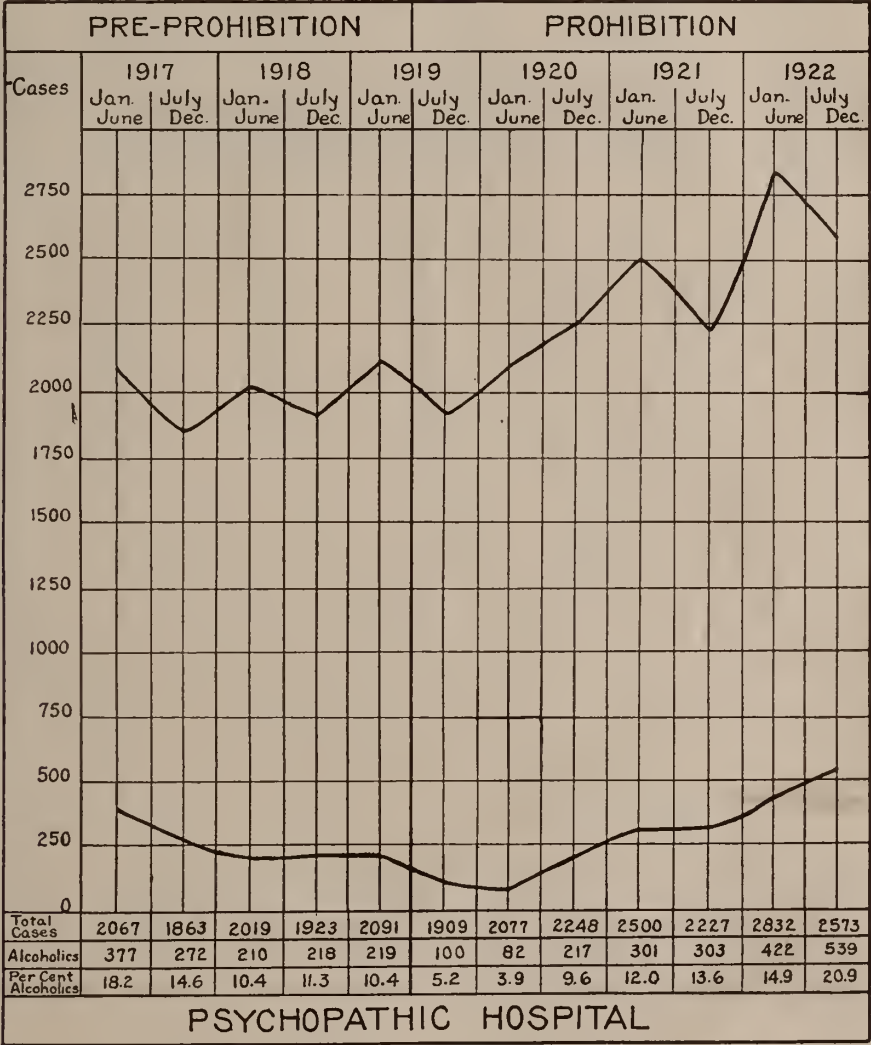
We can judge the general physical morbidity by reviewing the statistics dealing with the number of patients rendered sufficiently sick through the use of alcohol to be admitted to the hospital. At the Cook County Hospital the peak year of alcoholism previous to prohibition was 1912, when 827 alcoholics were admitted. There was a general, though not even, reduction for the following several years, which was particularly marked from 1916 to 1919, before the enactment of prohibition legislation. This fall has been noted in nearly every set of statistics consulted.³ In 1916 there were

3. Pollock, H. M. Mental Hygiene, 5:815; Miller, J. L. J. A. M. A., 76:1646.

only 99 alcoholics listed in the hospital. The number remained rather low through 1919 and the first half of 1920. In the latter half of 1920 a sharp rise occurred. There were 641 cases for the year. This increase has continued, so that in 1922 we find the greatest number of alcoholics in the history of the hospital—1,130. This indi-

concluding that “portal cirrhosis is associated largely and possibly entirely with the use of alcohol,” and suggested that prohibition was responsible for the almost complete disappearance of cirrhosis. I have obtained the figures for 1921 and 1922, and find that though there was some increase (59 in 1922), it has by no means kept

Figure 2.



cates a relatively high alcohol morbidity at present. (Table I and figure 1.)

Miller⁴ reported the incidence of portal cirrhosis in this hospital from 1910 to 1920. For each year between 1910 and 1917 there were never fewer than 132 cases of portal cirrhosis, and in one year the number had been as high as 160. By 1919 these cases had decreased to 48 and in 1920 there were only 19. Miller felt justified in

pace with the very great number of patients admitted for treatment for alcoholism. This would suggest either that alcoholism has no relation to cirrhosis, or, what is more likely, that beverage poisons now result in a rapid poisoning of the higher nervous centers and cause an early hospitalization, while the chronic and insidious effects resulting in cirrhosis are not so commonly seen. It may also be that the deteriorative effects and the earlier fatal termination in many cases re-

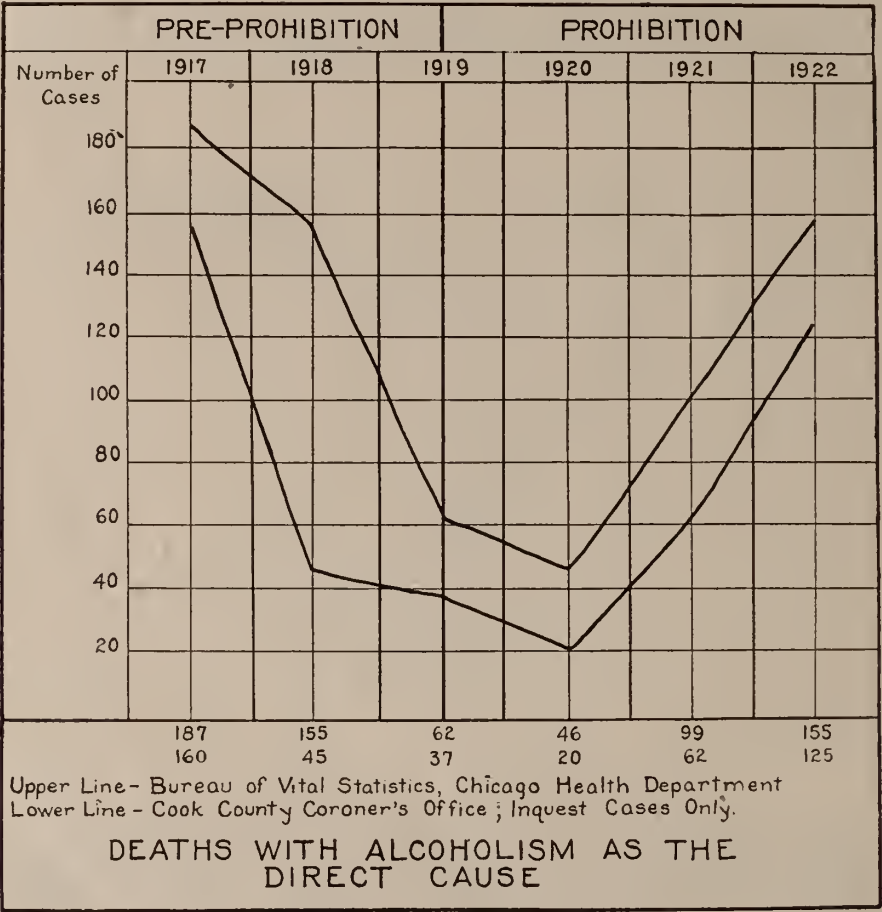
4. Miller, J. L. J. A. M. A., 76:1646.

move chronic alcoholics from the field, so that the material in which cirrhosis may develop is greatly reduced.

Capps and Coleman⁵ have made some interesting observations on pneumonia in the Cook County Hospital. The pneumonia patients treated over a period of several years were divided into three groups—the light users and abstainers, the moderate users, and the excessive users of alcohol. It was conclusively shown that

alcoholics. At the same time, as we have already noted, the number of patients admitted because of alcoholism was never greater. My personal observation corresponds with this. We do not see as many alcoholic patients with pneumonia at Psychopathic Hospital as formerly. This does not mean that the present-day poisoning renders men immune to pneumonia, but that the poisoning by alcoholic beverages now is of a rapidly progressive type which sends a man to

Figure 3.



in pneumonia patients who had been accustomed to alcohol the prognosis was more serious, and that the mortality increased in proportion to the amount of alcohol used. Of more interest than this, however, was the finding that since prohibition the abstainer group of pneumonia patients increased from 21.6 to 39 per cent of all pneumonia patients, while the heavy user group fell from 46.8 to 23 per cent. In other words, a smaller percentage of pneumonia patients were

the hospital before cold and exposure have favored the development of pneumonia. Further, we must not forget the very variable virulence of epidemics during the past few years. This factor does not allow of accurate comparisons as far as pneumonia is concerned.

Capps and Coleman also mention the fact that cases of delirium tremens had decreased in number from 33 in 1916 to only one for the years 1921 and 1922 together. Making due allowance for the errors in diagnosis of delirium tremens

5. Capps, J. A. and Coleman, G. H. J. A. M. A., 80:750.

common in general hospitals, there must still have been a remarkable reduction in the number. In the same period the alcoholics had increased 1100 per cent (99 to 1,130). This is suggestive of a modification in the type of alcoholism.

The mental morbidity has been studied at the Psychopathic Hospital. Cases of alcoholism are studied rather more carefully here than in general hospitals. The ordinary acute alcoholics are not acceptable. The cases are largely of two types, acute psychotic episodes in chronic alcoholics, and chronic alcoholics with evidences of mental deterioration. In the first six months of 1917 the 377 alcoholics constituted 18.5 per cent of all the patients received. In the first six

lieve that the Psychopathic Hospital death statistics can be accepted because they represent the coroner's finding more accurately than do most hospital statistics in cases subject to inquest. Eleven deaths were due purely to alcoholism in

TABLE I.
COOK COUNTY HOSPITAL

Year	All Patients	Alcoholics	Portal Cirrhosis
1910	33,232	387	137
1911	29,975	422	147
1912	30,392	827	154
1913	27,889	486	132
1914	29,330	225	141
1915	27,104	140	151
1916	31,261	99	160
1917	32,680	199	156
1918	29,527	149	87
1919	27,819	168	48
1920	27,862	641	19
1921	33,455	911	36
1922	36,099	1130	59

TABLE II.
PSYCHOPATHIC HOSPITAL. (SIX MONTHS PERIODS.)

	Patients	Alcoholics	Men	Women	Per cent Alcs.	All Deaths	Alc. Deaths
1917-Jan-June	2067	377	302	75	18.5	36	8
July-Dec	1863	272	211	61	14.6	21	3
1918-Jan-June	2019	210	169	41	10.4	33	3
July-Dec	1923	218	177	41	11.2	36	1
1919-Jan-June	2091	219	183	36	10.4	42	1
July-Dec	1909	100	85	15	5.2	38	1
1920-Jan-June	2077	82	77	5	3.9	49	3
July-Dec	2248	217	195	22	9.6	40	5
1921-Jan-June	2500	301	283	18	13.6	61	7
July-Dec	2227	303	274	29	14.9	39	7
1922-Jan-June	2832	422	383	39	14.9	48	8
July-Dec	2573	539	482	57	20.9	68	19

months of 1920 the number of alcoholics was only 82, or 3.9 per cent of the total number of patients admitted. During the last six months of 1922 we received 539 alcoholics, 20.9 per cent of the total admissions to the hospital. The mental morbidity had passed all previous limits. (Table II and figure 2.)

It may be of interest to note the relation of sex to alcoholism. In the first six months of 1917 there were 75 women alcoholics out of a total of 377, about one-fifth. From January through June, 1920, only five of the 82 alcoholics were women, one-thirteenth. During the last six months of 1922, of 539 alcoholics 57 were women, less than one-ninth. Though there has been some increase in the number of women admitted for this cause, women generally do not seem to be taking the same chances as men in the consumption of present-day beverages. (Table II.)

Deaths due to alcoholism are subject to investigation by the coroner, and nearly all bodies of patients dying in the hospital are examined at necropsy by the coroner's physician if there is any question of alcoholism. Through the courtesy of the coroner's physician we have been able to witness the autopsies and to check ante-mortem and post-mortem findings. Therefore I be-

lieve that the Psychopathic Hospital death statistics can be accepted because they represent the coroner's finding more accurately than do most hospital statistics in cases subject to inquest. Eleven deaths were due purely to alcoholism in

1917. The first year of prohibition, which included the last half of 1919 and the first half of 1920, showed four deaths from this cause. In 1922 there were 27 deaths. This considerably exceeds previous records in the hospital for deaths from alcoholism. (Table II.)

The mortality statistics for the Chicago Health Department and of the Cook county coroner's office are shown by means of a graph in figure 3. The Health Department statistics show the following: 187 deaths from alcoholism in 1917; 46 in 1920; 155 in 1922. During the first nine months of 1923 there have been as many deaths from this cause as in the whole of 1922, according to the figures given daily in the newspapers as a part of their campaign against moonshine poisoning. It appears that the alcoholism mortality has reached pre-war figures.

CLINICAL OBSERVATIONS

The clinical observations have been made at the Psychopathic Hospital. The patients fall into two general groups, those with acute psychotic episodes (usually on a basis of preëxisting chronic alcoholism) and the group of chronic deteriorated alcoholics.

A deep coma is seen often but is not quite as

common here as in the general hospital. The temperature is usually subnormal, the respirations slow, the body covered with perspiration, and the face cyanotic. Deep coma lasting more than five hours is a bad prognostic sign. The same may be said of coma cases with rapid respirations and with moist râles heard over the whole chest. The latter type is usually fatal. The great majority of patients in this general group recover, but there are undoubtedly deteriorative sequellae.

A state of maniacal excitement is seen more frequently in the Psychopathic Hospital than in the general hospital. There is blind struggling and fighting almost without pause. Many of these patients come to the hospital badly bruised and with broken ribs. The movements are rarely purposive, but ignorant attempts at restraint often result in the patient being injured before he is brought under intelligent control. Unless the patient can be quieted exhaustion occurs. When the hyperactivity is violent and prolonged the prognosis is bad, but fortunately aggravated examples of this type are not often seen. Injuries are often contributory to death here.

Clear-cut delirium tremens cases are not as common as formerly, though many are given this classification for lack of a better one. Delirium tremens patients have usually been drinking for weeks, and physical debility is marked. They are especially subject to decubitus ulcers. The tremor and restlessness are prominent features. Fever is common and in fatal cases there is often a preagonal hyperpyrexia. Jaundice of a toxic type and epileptiform convulsions have been seen. These are bad prognostic signs. On the mental side neither the disorientation nor the hallucinations are quite typical. Deteriorated intelligence is a common sequel.

Alcoholic hallucinosis, also rather atypical, is more frequently seen than delirium tremens. There is a tendency to chronicity. The same sort of deterioration of the mental faculties often results.

Korsakoff's psychosis is encountered about as frequently as it was formerly.

The diagnosis of chronic alcoholism with mental deterioration is made more commonly than ever before. The deterioration may be of a simple type that renders the individual unable to cope successfully with his environment, or it may be of the delusional type, which makes him a

menace when not confined in an institution. The "pseudoparetic" and paranoid types are fairly common. From inquiries into the histories of these patients it appears that deterioration is an earlier result than with ordinary alcoholism.

As will be noticed, the clinical types described all follow the usual classification of alcoholic psychoses and dementias. However, they are somewhat atypical, both because mental deterioration is almost the rule even after one or two sprees, and because we rarely find a case that distinctly and without question can be placed in one of the usual groups. There is a general blurring of the picture all the way through the various types.

Multiple neuritis is not as frequently found as might be expected from the prevalence of other nervous and mental changes. The change seen most often in the eyeground is sclerosis of the arteries. Only two cases of optic atrophy due to alcoholism have been seen in the last year. More "true moonshine" and less wood alcohol-containing beverage is probably being used now. Albumin is frequently found in the urine, but the amount is usually slight, and we do not often find casts. Acetone is usually present. As already noted, clinically demonstrable portal cirrhosis is uncommon.

PATHOLOGICAL FINDINGS

There is no pathology which can be regarded as pathognomonic of moonshine poisoning. All of the cases coming to autopsy in which no other cause of death was determinable showed the type of change generally associated with poisoning by alcohol. Serous meningitis was an almost constant finding. In acute poisonings with a preceding history of chronic alcoholism the serous exudate was a very noticeable feature. Cortical atrophic changes show no distinctive differences. Cloudy swelling and early fatty degeneration of the liver was quite usual. Liver enlargement was never great. Congestion and edema of the lungs was seen in many cases. Except in a few instances it was probably a preagonal change. Lobar pneumonia was not frequently found. More diagnoses of bronchopneumonia were made ante-mortem than could be verified post-mortem. Mild grades of diffuse nephritis were found but, on the whole, kidney pathology was less commonly discovered than had been expected.

SUMMARY

1. For practical purposes we must consider

moonshine poisoning as alcoholism of a modified or aberrant type. Various aldehydes, of which acetaldehyde may be considered the chief example, are responsible for the increased toxicity. Practically all alcoholism now encountered clinically is of the "moonshine" type.

2. It is a very prevalent form of poisoning at present, and in Chicago, at least, is as frequently found as alcoholism was in the pre-war and pre-prohibition periods.

3. The physical and mental morbidity and the mortality are high.

4. The type of poisoning seen differs from ordinary alcohol poisoning in the following ways:

(a) The poison takes effect more rapidly, and the patient is brought to the hospital sooner because of the gravity of his symptoms. A smaller amount of the prevalent beverages is required to incapacitate.

(b) The effect is more profound and more often fatal.

(c) Mental deterioration is a common sequel even after a few sprees.

(d) As far as the mental symptoms are concerned the clinical picture is usually blurred, thus making classification of cases more difficult.

(e) Pneumonia has not so frequently been associated with the present form of poisoning as with alcoholism in the past.

(f) Cirrhosis does not appear to be associated with the present form of alcoholism as it was with alcoholism in the past.

5. Men alcoholics outnumber the women alcoholics to a greater extent than ever.—*American Journal of Public Health*.

WHO WOULDN'T

Four and twenty Yankees,
Feeling pretty dry,
Went up to Canada
To get a case of rye.
When the case was opened
They all began to sing
"Who the Hell Is Volstead?
God save the King!"

WHICH WHIPPED?

He (in family spat): "Well, you know what Kipling says of woman—'A rag, a bone, a hank of hair,' and I guess he was right" "

She: "Well, it takes no Kipling to know man as 'A nag, a drone and tank of air!'" "

Society Proceedings

ADAMS COUNTY

Meeting of July 14, 1924

This was a dinner meeting of the Adams County Medical Society at the Quincy Chamber of Commerce to honor the golden jubilee of Dr. L. H. A. Nickerson, who has been engaged in the practice of medicine for 50 years, having graduated from the University of Pennsylvania in 1874. The meeting was called to order by the president, Dr. Warren Pearce, and there was a total of 41 present, including one guest, Dr. G. E. Whitlock of Columbus, Ill.

After partaking of a splendid chicken dinner the president spoke on the purpose of the meeting to honor Dr. Nickerson and Dr. H. P. Beirne was called upon to talk on "Dr. Nickerson and Medical Organization." This was followed by a talk on "Dr. Nickerson as a Physician" by Dr. E. B. Montgomery. Following this Dr. C. D. Center, on behalf of the Adams County Medical Society, presented Dr. Nickerson with a gold headed ebony cane suitably engraved, expressing the good wishes from the Society on behalf of his 50 years of active medical practice.

Following the above addresses a short business session was held. Dr. A. H. Bitter reported for the entertainment committee, stating that the next meeting would be the annual picnic and would be held on Thursday, August 7, at the Big Lake Hunting and Fishing Club. The secretary made a motion that the name of the monthly Bulletin be changed from the Adams County Medical Society Bulletin to the Quincy Medical Bulletin and gave a number of reasons why this was desirable. This was seconded by Dr. Williams and carried without opposing vote. Dr. Nickerson made a motion that a committee of 9 be appointed to have charge of the arrangements for the 1925 convention of the Illinois State Medical Society in Quincy. Seconded and carried. Dr. Koch made a motion that Dr. Harold Swanberg be made chairman of the Arrangement Committee for the 1925 convention of the Illinois State Medical Society and that the president of the Society appoint the remaining members of the committee. Seconded and carried.

At the conclusion of the above, a motion for adjournment was made and carried, the meeting adjourning about 10:15 p. m.

HAROLD SWANBERG, M. D.,
Secretary.

COOK COUNTY

THE CHICAGO LARYNGOLOGICAL AND OTOLOGICAL SOCIETY

The regular monthly meeting of the Chicago Laryngological and Otological Society was held on Monday evening, March 5, 1923, at 8:00 o'clock.

The President, Dr. C. H. Long, in the Chair.

DR. WILLIAM E. GROVE (Milwaukee), presented a

paper entitled: "Parotid Fistulae in Mastoid Operations."

Abstract

The essayist added the following case to the few recorded in the literature: On March 3, 1923, there was admitted to the Columbia Hospital a child, aged 8, with an acute mastoid on the right side. This followed an attack of influenza two weeks before. There had been a severe earache three days before when a paracentesis was done. Following this there was a copious discharge of pus from the ear.

Past History: Earache with every attack of sore throat. Has had several previous attacks of otitis media. Tonsils and adenoids were removed December, 1917. Remainder of the past history negative except for an attack of pneumonia at eighteen months.

Physical Examination: Brown purulent discharge from right external canal. Tenderness over right mastoid region but no edema. Glands of right side of neck are slightly enlarged. Left ear negative. Chest negative. Abdomen negative. Reflexes all present but those of extremities are exaggerated. On admission temperature 103° F. Pulse 102. Respiration 22. Blood examination 10,850 W. B. C. Differential count shows S. M. 4 per cent; L. M. 2 per cent; polys. 85 per cent; eosin 2 per cent; trans. 6 per cent; baso. 1 per cent.

Operation 3-4-20: Typical simple mastoid operation done with a straight vertical post-auricular incision extending from the level of the upper attachment of the auricle to the mastoid tip. The cortex was extremely thin. When this was removed extremely large mastoid cells were encountered, which occupied the entire mastoid process down to the extreme tip, and which were everywhere filled with a thin straw colored fluid. Cultures from the wound gave Gram + Coccus. Blood culture was negative. Wound was packed with an iodoform drain.

March 8, 1920: Marked nasal discharge for last few days.

March 12, 1920: Right dacryocystitis appearing with severe inflammatory signs.

March 16, 1920: Under gas anesthesia the abscess of the right lacrymal sac was incised and a small drain inserted.

March 28, 1920: Patient left hospital with both mastoid and lacrymal wounds in good condition.

May 4, 1920: Patient entered Mr. Sinai Hospital because of a rise of temperature, which had begun one week before. At this time the drum, which had closed, had been reincised. There was not much discharge after the paracentesis but there was swelling and tenderness in the region around the mastoid wound. Under gas anesthesia the mastoid wound was cleaned out and some infected cells in the zygomatic region not reached by the original operation were cleaned out. The elevated temperature fell to normal in three to four days and the patient left the hospital on May 16, 1920. Between May 26th and May 31st she again reentered the hospital for observation because of a rise of temperature, but this gradually subsided.

The mastoid wound now gradually filled in until it was closed and the patient left town. While away she noticed that the wound became moist whenever she chewed or yawned. When she returned for my observation I made out a small fistula in the lower portion of the mastoid wound leading in the direction of the inferior portion of the auditory canal, and from which a thin limpid secretion was seen to issue whenever she chewed. Various attempts to close this by means of fused silver nitrate but with no success.

In February, 1922, during an attack of scarlet fever an extensive mastoid operation on the left side was necessary. The same very pneumatic mastoid was encountered as upon the right side. The entire mastoid consisted of very large cells extending to the extreme tip, into the zygomatic region and back into the diploic spaces. These cells were all involved in the process and were cleaned out. The lateral sinus was laid bare throughout a large extent because of a perisinous infection but was not opened. During this illness the right mastoid wound broke down, following an acute otitis media, and it was again opened and drained. The mastoid wounds both filled in very slowly because of the lowered resistance of the patient. After they had closed entirely a very tiny fistula appeared at the lower portion of the left mastoid wound similar to that which had occurred two years previously on the other side. As far as I know this is the only reported case of a bilateral parotid fistula following mastoid operations."

He has not been able to close the fistulae by silver cautery but as time passes they are gradually closing so that at the present time very little fluid escapes from them. He has advised resection of the fistula and suture, but this has been refused by the patient.

DISCUSSION

DR. JOSEPH C. BECK said he never had encountered such an unfortunate condition as a double fistulae of the parotid gland. He did not think it likely that the Doctor's case was the result of injury by a sharp instrument on both sides. The only experience Dr. Beck had had with a parotid fistula was wherein a nerve anastomosis between the facial and spinal accessory nerves was performed. In that specific case the assistant penetrated the parotid gland with a sharp retractor and Dr. Beck called his attention to the probability of a parotid fistula resulting from that accident. It did, and continued to discharge for several weeks. The introduction of a conical point which was charged with electric heat (surgical diathermia) finally succeeded in closing the fistula. No doubt this procedure resulted in the coagulation of the epithelium lining the fistula and allowed cicatrization to take place. This case was reported in connection with a few cases that were operated for anastomosis. The facial paralysis, however, did not recover.

DR. J. HOLINGER reported an experience with a parotid fistula in the 3-year old girl of a colleague. The abscess of the parotid started one week after operation. The parotid was not injured during the operation. In order to avoid a scar on the face later he incised the abscess subcutaneously from the mastoid wound. He advised the parents to omit all fruit from the diet, but the father thought this was a "grand-mother fad" and paid no attention to it. The abscess persisted and necessitated daily changes of dressings for six weeks. Dr. Holinger was convinced that the fruit acid caused an increase in the secretion of saliva and persuaded the father to leave off all fruit and fruit juices, whereupon the fistula closed in two days.

DR. GEORGE E. SHAMBAUGH said that study of the anatomy of the external meatus has disclosed a condition which permits

of extension of infection from the parotid into the external meatus and of an infection in the walls of the canal through to the parotid. The anterior wall of the external part of the canal is formed by a wedge shaped tongue of cartilage which has two clefts called the incisura of Santorini. These clefts are necessary for the movement of the auricle in the lower animals. It is through these incisura that the infection extends. Dr. Shamhaugh had never seen a case where a furuncle had broken through the meatus into the parotid, but he had seen an abscess of the parotid which broke through into the external meatus.

Dr. OTTO STEIN said he had had no experience with parotid fistulae in connection with mastoids. He had seen an abscess of the parotid break through into the canal followed by a fistula and had seen one case of fistula in the parotid canal due to infection from opening a furuncle, but he had never seen such a case as that reported by Dr. Grove.

Dr. W. E. GROVE (closing) said that when the first of the fistulae occurred he was willing to plead guilty to having been clumsy in his operative procedures and possibly to having injured the parotid gland in some way, but when he operated on the child on the opposite side with the first experience in mind, he was certain he did not injure the parotid gland. His only explanation for the thing occurring on both sides was that there must have been a much displaced parotid gland which projected backward into the field of operation.

He agreed with Dr. Holinger that with a salivary fistula of this kind it would be wise to avoid the use of any foods that would stigmatize the flow of salivary secretion. The more a fistula can be kept from discharging the better chance there is for prompt healing.

Dr. J. HOLINGER addressed the Society on "Experiments on Over-Irritation of the Labyrinth (at Professor Siebenmann's Clinic of Basel, Switzerland)."

Abstract

The essayist briefly reviewed a long series of experiments that have been published under several names in the *Zeitschr. f. O.*, and the special work by N. Satah, and presented lantern slides which demonstrated this interesting work in detail.

He stated that the middle ear was always found free from changes if there had not been any intentional interference, such as removal of the anvil. The vestibulum and the semi-circular canals were also free from change. The cochlear nerve, the spiral ganglion and the acoustic nerve were free in the beginning but became successively atrophic with the progress of the atrophy of the respective parts of the organ of Corti.

These experiments showed that bone conduction does not influence the result of over-irritation. In the human there is increased bone conduction in disease of the middle ear, but if this were as important as Wittmaack believes the ears without the anvil could not show an intact organ of Corti. Hoesslin and Satah concur in the opinion that the membrane of Corti is the active part and this corresponds with the finds of Dr. Shamhaugh in the ampullae, where a similar organ, the cupola, irritates the hair cells. It is not known how the membrane of Corti is moved.

From these experiments the essayist drew the following conclusions:

1. If animals are exposed to very loud noises for several hours on many successive days, the entire organ of Corti becomes atrophic and finally is displaced by connective tissue in all convolutions of the cochlea.

2. If animals are exposed in a similar manner after removal of the anvil atrophy does not take place,

showing that hearing is seriously interfered with if the middle ear is not intact.

3. If animals are exposed in a similar manner to clear sounds, i. e., sounds without overtones, the atrophy of the organ of Corti is circumscribed. The area of degeneration is located nearer to the base of the cochlea as the sound which causes the degeneration is pitched higher. The lower in pitch the sound which causes the degeneration, the higher in the cochlea is the area of degeneration.

4. If very loud shots are fired close to the ears of the animals (without any bodily injury except by the noise), the animal becomes unconscious and remains in this state for several hours, or even days. If the animal is killed while in that state the hair cells and Deiter's cells are found in complete disorder; some of them appeared as if torn out of their place and laid in different positions, others looked as if depressed or crushed.

5. If animals are examined at different periods after being exposed to the noise of loud shots the organ of Corti is found in different stages of regeneration. After six weeks the reparation is complete, but the animal is fretful, psychically altered (shell-shock).

6. If the animal is exposed the second time to the noise of a loud shot close to the ear the same change is found immediately after this exposure, but subsequently no regeneration takes place; the whole organ of Corti is replaced by connective tissue, the animal is completely deaf and the atrophy progresses to the cochlear nerve, the spiral ganglion and the acoustic nerve.

7. In birds the organ of Corti is much wider and flat, not rolled up in the form of a snail as is the case in higher animals, but similar results were obtained. After the shooting the following facts were observed: The outer parts of the organ of Corti were much more changed than the inner parts. The outer hair cells were crushed and torn out of their position while the inner hair cells were practically intact. This led to the final conclusion that in the act of hearing Corti's membrane does the vibrating and not the basilar membrane. In the shooting experiments the end of the membrane makes the largest excursions and does the greatest damage; near the insertion the excursions are smaller and consequently the inner hair cells remain intact.

DISCUSSION

Dr. GEORGE E. SHAMBAUGH expressed himself as quite in accord with Dr. Hollinger that this research was one of the most interesting as well as the most instructive investigations that has yet been undertaken on the internal ear.

When Wittmaack first published the results of his work Dr. Shamhaugh examined the drawings with a great deal of interest but could not help being somewhat skeptical about interpreting slight changes as being the result of over-stimulations. He has so often observed in his own work, changes in the organ of Corti which were artefacts. Fixing fluids penetrate the labyrinth very poorly and the delicately constructed organ of Corti soon undergoes postmortem changes.

Dr. Shamhaugh has often resorted to the extraction of the stapes in order to permit the more rapid penetration of the fixing fluid. When this is done without tearing the endosteum covering the foot-plate, a very good result can be obtained. To obtain fixation, however, by the ordinary method of dropping the tissue in the fixing fluid does not always give satis-

factory results. Often the organ of Corti in the basal coil was in perfect condition, but postmortem alterations were prevalent throughout the upper coils.

An opportunity came some few years later to examine the preparations made in Siebenmann's laboratory and there was no room for confusing the actual degenerations with any artefacts. The particular things of interest brought out in this research are that different areas of the organ of Corti undergo degeneration with the different types of whistles used in the stimulation. The higher the pitch the lower down toward the beginning of the basal coil was the degeneration area. It was noted that for each tone used a rather extensive area of the organ of Corti was involved. It would seem that a single tone produces stimulation of rather an extensive area in the Corti's organ. This does not in any way conflict with our conception of a peripheral tone analysis. All that is required to make this possible is that a different group-complex of hair cells are stimulated for each tone in the scale.

It was very interesting to note that where the conduction mechanism was broken by the extraction of the incus, this method of over-stimulation did not produce the characteristic degenerations in the cochlea. The results of loud explosions were particularly interesting. Where the organ of Corti was examined immediately after the explosion, as for example, the shot of a pistol close to the ear, one invariably found Corti's organ as though blown to pieces. If, however, the animal was not killed until some weeks later, one of two things was found. Either the organ of Corti had undergone complete degeneration or there had been a restitution of the normal condition. This was exactly what was found so frequently during the war. Some of these cases remain permanently deaf, and others show a partial or even a complete return of hearing later on.

Some of the men who are studying these cases during the first period of the war tried to explain these phenomena on the basis of an injury to the nerve fibers in the brain. Dr. J. Gordon Wilson seemed to be inclined to this view. He thought it was Dr. Holinger who, when Wilson made his first report here, called his attention to this experimental research by Wittmaack and Siebenmann. Later Dr. Wilson accepted the view that the defects in the hearing caused by concussion were the result of peripheral alterations.

Dr. Shambaugh stated that the Society should feel grateful to Dr. Holinger for bringing this very interesting study before them.

DR. JOSEPH C. BECK thanked Dr. Holinger for bringing out this work and called attention to the work done by Yoshi who is really the great man in Tokyo today. He did a great part of this work and never for a moment forgot or neglected to point to Siebenmann as the man who originated the work. He was kind enough to show Dr. Beck how to preserve a specimen from a case of otosclerosis, in the event he got a postmortem where he could get the labyrinth and fix it, and he showed him how to inject the labyrinth. Dr. Beck had found, as others had, the great amount of artefacts when the specimens were removed by the old methods of fixation. Yoshi took an animal (guinea pig) and thrust a trocar into the heart and then by gravity injected the entire head, including the labyrinth. He then removed the temporal bone and showed him how wonderfully the labyrinths were bathed in the injected fluid. Dr. Beck thought this work of Yoshi's was a very valuable contribution.

DR. ROBERT SONNENSCHNEIN thought that two of the outstanding points in the address were, first, the light thrown upon the function of the tectorial membrane to which, as had been stated, Dr. Shambaugh called attention years ago and was the first to offer a better explanation for the theory of hearing than was given by Helmholtz, who used the hasilar membrane as the resonating membrane. Second, was the conduction of sounds by the middle ear and the absence of sounds when this conducting mechanism was eliminated.

Dr. Sonnenschein asked if it would be feasible to convey sound by bone conduction alone by the fixation of an apparatus of some sort to the head of an animal after destroying the middle ear. It was assumed by Bezold that the only difference between air and bone conduction is that in air conduction the waves strike the flat surface of the tympanic

membrane, whereas in bone conduction the sound waves impinge upon the edge thereof.

DR. J. HOLINGER (closing the discussion) said that experiments had been made with two different whistles, one of lower and one of higher pitch, at the same time. In those experiments two areas of degeneration had been found separated by a normal part of the organ of Corti.

The fixation of the labyrinth was carried out by injecting the fixing fluid into the vascular system of the living animal, thus killing the animal. This was the quickest and best fixation that could be obtained and explained why the specimens were so complete.

The controversy between Siebenmann and Yoshi on one and Wittmaack on the other side had lasted for many years. Wittmaack attributed the changes in the cochlea to bone conduction. He argued that the animal was sitting on a sheet of metal, and the sound went through the bones of the body to the labyrinth. As a matter of fact he exhausted the animals by continuously shaking them, day and night, plus the excessive sound. Siebenmann exposed his animals only eight or twelve hours a day, a period similar to the working hours of hoiler makers and engineers. To prove that air condition and not bone conduction produced the changes the animals were placed on cotton or some other sound absorbing substance, so that no sound could pass from the cage to the animal's bones. In this way by air conduction exclusively he produced the same changes.

This is of great importance for the prevention of locomotive engineers' and hoiler makers' deafness: If the floor upon which these men stand was responsible for the transmission of sound and therefore for the deafness all that would be necessary would be to put a non-sound conducting material on the floor for the man to stand on. This was tried and proved of no avail. Wittmaack had furthermore suggested that soldiers during artillery fire should either stand on their tiptoes, or on soft soil, but this too had no effect.

It soon became evident that the Japanese with their nimble fingers were the proper technicians for this work. The handling of the extremely delicate specimens, especially of birds, was very difficult. But for the mapping out and planning of the work, for criticizing the experiments, passing judgment on the specimens and the composition of the text Siebenmann's thought, work and even style can easily be recognized everywhere in the works published under the names of Yoshi and Satoh.

BOTH FORGET

Patient—I can't pay that bill. It's too much.

Medic—Well, I'll show you that I'm a good sport. I'm going to forget half that bill.

Patient—That's fine. I certainly appreciate that favor, Doc, and to show you what kind of a sport I am, I'll tell you what I'll do.

Medic—What's that?

Patient—Forget the other half.

REMARKABLE DEMISES

The ways in which application forms for insurance are filed up are often more amusing than enlightening, as the *British Medical Journal* shows in the following selection for examples:

"Mother died in infancy."

"Father went to bed feeling well, and the next morning woke up dead."

"Grandfather died suddenly at the age of 103. Up to this time he bade fair to reach a ripe old age."

"Applicant does not know anything about maternal posterity, except that they died at an advanced age."

"Applicant does not know cause of mother's death,

but states that she fully recovered from her last illness."

"Applicant has never been fatally sick."

"Applicant's brother, who was an infant, died when he was a mere child."

"Grandfather died from gunshot wound, caused by an arrow shot by an Indian."

"Applicant's fraternal parents died when he was a child."

"Mother's last illness was caused from chronic rheumatism, but she was cured before death."—*The Christian Advocate*.

Marriages

WILLIAM ERNEST BALSINGER, Chicago, to Miss Charlotte Du Puis of Beauvais, France, at Los Angeles, June 17.

ALEXANDER A. BIENIEWSKI to Miss Irene Slavenski, both of Chicago, recently.

ARTHUR M. CORWIN to Mrs. Marion Dwyer, both of Chicago, at Joliet, July 21.

ROY G. GRINKER, Chicago, to Miss Mildred Lucile Barman of London, England, July 24.

ROGER WOLCUTT HUBBARD, Kankakee, Ill., to Miss Rhada Belle Smith of Chicago, recently.

LORETTA KATHERINE MAHER, Chicago, to Major Jay Leland Benedict, U. S. Army, at River Forest, Ill., June 14.

FRANKLIN ROY RUBRIGHT to Miss Vera Terry, both of Sterling, Ill., at Chicago, June 7.

HARRY ARTHUR SALZMAN to Miss Anna Gertrude Levin, both of Chicago, June 6.

EDWIN A. WEGNER to Miss Edythe Kerr, both of Chicago, June 10.

GEORGE A. TELFER, Hillsboro, Ill., to Miss Blanche Duvall of Springfield, June 14.

Personals

Dr. Joseph W. Edwards, Mendota, celebrated his ninety-second birthday, June 30.

Dr. Frank W. Goodell, Effingham, has been appointed physician of Effingham County.

Dr. Garrett A. Norton has been appointed city health officer of St. Charles, succeeding Dr. William E. Constant, resigned.

Dr. Ida M. Kahn, Chinese medical missionary and delegate to the General Conference of the Methodist Church, gave a lecture in Greenville, recently.

Dr. Harold Swanberg, Quincy, has been appointed chairman of the local arrangement committee for the 1925 convention of the state medical society which will meet in Quincy.

Dr. Bert Tripper has been appointed superintendent of Oaklawn Sanatorium, Jacksonville, to succeed Dr. Francis M. Roberts, effective August 1.

Dr. Dallas B. Phemister, Chicago, gave an address on "Diagnosis and Treatment of Bone Tumors," before the Northeastern Indiana Academy of Medicine at Kendallville, July 3.

Dr. Edith B. Lowry, St. Charles, has been appointed chief of the division of child hygiene of the state department of public health. Dr. Lowry formerly was in the Chicago Health Department and the U. S. Public Health Service.

Dr. Levin H. A. Nickerson, Quincy, who graduated fifty years ago from the University of Pennsylvania School of Medicine, Philadelphia, was given a banquet in honor of his forty-seventh year in the practice of medicine by the Adams County Medical Association, July 14. Dr. Nickerson was formerly president of the state medical society.

Dr. and Mrs. Howard Burns of Carrollton, have plans to depart the middle of August for a trip around the world, going to Japan, China, Australia, India, Egypt, Europe, and British Isles, where the doctor will do some post-graduate work at the University of Edinburgh. They expect to be gone about a year.

News Notes

—The Chicago Department of Health vaccinated against smallpox 2,886 persons during June, which made a total for the first six months of the year of 124,284.

—A 17-acre plot on Oak Park and Belden avenues was purchased for the sum of \$44,000, June 24, as the site for the \$500,000 Shriners' Hospital for Crippled Children.

—The annual picnic of the Adams County Medical Society will be held at the Big Lake Hunting and Fishing Club on the Mississippi River, August 7. The name of the society's bulletin has been changed to the *Quincy Medical Bulletin*.

—Members of the society are requested to notify the secretary's office at once of any gunshot wounds coming under their care, which information will be turned over to the authorities for the purpose of apprehending criminals.

—More than half the \$500,000 wanted has been subscribed toward the erection of a com-

munity center, to be opened on the north side in the near future. W. B. Frankenstein, chairman of fund committee, contributed \$100,000. The site has not yet been chosen. The center will be nonsectarian.

—At the annual meeting of the society, June 17, Dr. Jeremiah H. Walsh was elected president; Dr. Malcolm L. Harris, president-elect; Dr. Clarence W. Leigh, treasurer, and Dr. Roy R. Ferguson, secretary. There will be no more meetings until October, but the *Bulletin* of the society will be published as usual during the summer months.

—A free school of instruction in the diagnosis and treatment of tuberculosis was held at the Public Library, Jacksonville, June 25, under the auspices of the Morgan County Medical Society and the Jacksonville Clinical Association. Addresses were given by Dr. George T. Palmer, Springfield; Dr. James S. Pritchard, Battle Creek, Mich., and Drs. James W. and Roswell T. Pettit of Ottawa.

—Examinations of candidates for entrance into the Regular Corps of the U. S. Public Health Service will be held at the following-named places on the dates specified:

At Washington, D. C. September 15, 1924
At Chicago, Ill. September 15, 1924
At San Francisco, Cal. September 15, 1924
At New Orleans, La. September 15, 1924

Candidates must be not less than twenty-three nor more than thirty-two years of age, and they must have been graduated in medicine at some reputable medical college, and have had one year's hospital experience or two years' professional practice. They must pass satisfactorily, oral, written and clinical tests before a board of medical officers and undergo a physical examination.

Successful candidates will be recommended for appointment by the President with the advice and consent of the Senate.

Requests for information or permission to take this examination should be addressed to the Surgeon General, U. S. Public Health Service, Washington, D. C.

Deaths

THORWALD ANDA, Chicago; National Medical University, Chicago, 1896; aged 53; died, July 2, of septicemia, following a prostatotomy.

HULL M. BLACK, Wakefield, Ill.; Chicago College

of Medicine and Surgery, 1910; aged 50; died, June 14, of cerebral hemorrhage.

THOMAS NEWTON BOUE, Loda, Ill.; Rush Medical College, Chicago, 1866; aged 87; died, July 9, of pneumonia and arteriosclerosis.

ANDERS (DAAE) DOE, Chicago; University of Christiania, Norway, 1878; aged 72; died, June 14, of heart disease and diabetes mellitus.

JAMES MILTON DURIN, Chicago; Hahnemann Medical College and Hospital, Chicago, 1889; a Fellow, A. M. A.; aged 57; was shot and killed, July 6, at his home in Steward, Ill.

GEORGE ROBERT FEGAN, Crete, Ill.; Rush Medical College, Chicago, 1900; aged 58; a Fellow, A. M. A.; died, June 11, at St. Mary's Hospital, Rochester, Minn.

WILLIAM H. GRAYSON, Granite City, Ill.; St. Louis College of Physicians and Surgeons, St. Louis, 1883; member of the Illinois State Medical Society; aged 78; died, July 1, at Excelsior Springs, Mo., of uremia.

SAMUEL MEAD HAGER, Chicago; Medical College of Ohio, Cincinnati, 1885; assistant professor of ophthalmology at the Chicago Policlinic; on the staffs of the Illinois Charitable Eye and Ear Infirmary and St. Vincent's Infant and Maternity Hospital; aged 59; died, June 7, at the North Chicago Hospital, of cerebral edema.

ALBERT W. HINMAN, Dundee, Ill.; Chicago Homeopathic Medical College, 1879; aged 79, died, June 16, at DeKalb, of heart disease.

WILLIAM FRANCIS JACOBS, Chicago; Rush Medical College, Chicago, 1897; a Fellow, A. M. A.; aged 53; died, June 17, of pneumonia.

FREDERICK ARTHUR JEFFERSON, Chicago; Rush Medical College, Chicago, 1895; formerly on the staff of the American Hospital and president of the Sheridan Park Hospital, now the John B. Murphy Hospital; aged 55; was found dead, July 2, from gas asphyxiation.

FREDERICK WILLIAM KERCHNER, Glen Carbon, Ill.; Marion-Sims College of Medicine, St. Louis, 1898; member of the Illinois State Medical Society; aged 53; died, July 2.

WILLIAM LYTLE LINABERY, Princeton, Ill.; University of Illinois College of Medicine, Chicago, 1883; aged 65; died, June 28, of chronic nephritis and myocarditis.

JOHN CLARENCE LINDSAY, Fairbury, Ill.; Medical Department of Columbia College, New York, 1890; aged 60; died, July 10, at St. Luke's Hospital, Chicago, of ruptured aortic aneurysm.

DAVID M. PROVAN, Chicago; University of Illinois College of Medicine, Chicago, 1892; member of the Illinois State Medical Society; aged 62; died, July 11, at the Norwegian-American Hospital, of diabetes mellitus and ulcer of the stomach.

RINEHART P. RATTS, Paris, Ill.; Kentucky School of Medicine, Louisville, 1876; member of the Illinois State Medical Society; aged 69; died, June 23.

LEWIS C. TAYLOR, M. D.

President, Illinois State Medical Society, 1924-1925
Supplement to Illinois Medical Journal, July, 1924.

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Illinois Medical Journal

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ILLINOIS MEDICAL JOURNAL

THE OFFICIAL ORGAN OF
THE ILLINOIS STATE MEDICAL SOCIETY

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Editorial

UNITED STATES WARS AND ILLINOIS DOCTORS

PART PLAYED IN COUNTRY'S CONFLICTS BY MEDICAL MEN OF THE ILLINOIS COUNTRY

The soldier-doctor will come into his own at last, according to plans for the compilation of the "History of Medical Practice in Illinois."

Haphazard and scattered records are the only available annals of military medical service prior to the World War. A large part of these is practically inaccessible for general and immediate reference, and an even larger part is sadly incomplete. Even those chronicles procurable from the libraries of the Adjutant-General of Illinois, the Surgeon-General of the U. S. A., the Adjutant-General of the War Department, or the Congressional Library show many lapses. Much of this missing material is in the histories of various counties, in court records, family albums and traditions, Bibles, in community statistics and in the post-war organizations of the veterans themselves.

It is sad but true that the memory of these men is neglected where general records are concerned, through a lack of accuracy. For instance, in reports of the Spanish-American war, published in August issue, there appeared only thirty-five names of Illinois men in medical service, with no mention at all of the contract surgeons serving then, and in the Army of the Philippines. The contract surgeons for the Spanish-American War and Philippine Insurrections is published in this issue.

Medical men or women who had war service personally, or relatives of such physicians, will confer the tribute due to those sacrifices by sending at once a complete record of military service during any of the conflicts waged by the United States from the time of the War of the Revolution to the World War. This includes those who were acting assistant, or contract surgeons, or in

the line, or with other staff organizations, and needs to be completed in every detail. Kindly scrutinize the lists presented in this magazine.

Note the absentees: search your personal and public records, those at home and in the libraries and public files, and send the information gleaned thereby direct to me at 25 East Washington Street, Chicago, Ill., obliging thereby

P. J. H. FARRELL, M.D.

WAR RECORDS WANTED OF ILLINOIS DOCTORS

FROM THE REVOLUTIONARY TO THE WORLD WAR

Col. P. J. H. Farrell, M.D., patriot and veteran of four wars, has been charged with the responsibility of securing the war records of his confreres, living or dead, for "The History of Medical Practice in Illinois."

So far as is known to the Committee on Medical History, there is no man better equipped for this important service than is Col. Farrell. He has the assistance of the Surgeon-Generals of the Army and Navy, the War Department, Adjutant General of Illinois, and is thoroughly familiar with military affairs, and with his fellow-physicians. The period covered is so extensive, and older records so obscure, and heirs or friends so widely scattered in many instances, that Col. Farrell must have help from every possible quarter. It is little enough to ask of the general public, and the profession at large for the sake of those who are dead, and whose service in the public behalf deserves at least this much recognition. It goes without saying that the committee desires to have the war record of each man as detailed and accurate as it is humanly possible to make it. With everybody's co-operation Col. Farrell can achieve this. Send your information to Col. P. J. H. Farrell, 25 East Washington Street, Chicago, Ill. A list of physicians serving in earlier wars is published in this issue. Additions and corrections will be appreciated.

LAY PERSONS ASSIST MEDICAL HISTORY COMMITTEE

OUTSIDERS RIVAL MEDICAL PROFESSION IN DIGGING UP DATA FROM OLD RECORDS

The letter being sent out to newspapers all over the state by the Medical History Committee,

is achieving excellent results, especially where lay persons are concerned.

Newspapers are co-operating by publishing the committee's request, for general assistance in assembling data concerning pioneer physicians and early medical practice in the Illinois Country.

Two shining examples of this concurrence may be found in the articles published below in this issue and based upon information sent in by Harold W. Trovillion, publisher of the Herrin News at Herrin, Ill., and H. E. Kimmel, an attorney of Du Quoin, Ill., who says he saw the request "in our local paper."

Will members of the profession please try to emulate these two contributors?

FIRST WORLD WAR VICTIM A PHYSICIAN, NOT DOUGHBOY

After four years and five months' silence, discovery is made that the first member of the American Expeditionary Force to be killed in France during the World War was not a doughboy, but a physician—Dr. William R. Fittsimons of Kansas City, Mo., a lieutenant in the Medical Corps attached to Base Hospital No. 5.

Heretofore credit for the first sacrifice has been given to a doughboy and a monument erected to his memory in the Toul sector commemorating the spot on which he gave up his life. In the same belief the French awarded a citation to the father of Private George Ashburn of the First Division as the first victim offered by America to the Allied cause.

Now investigation discloses that Dr. Fittsimons, while assigned to the British forces at Dannes-Camiers, was killed on September 15, 1917, by a German bomb dropped at night in the town. The same bomb killed two other members of the corps and wounded three physicians and two privates.

While belated, the announcement now definitely fixes medicine's place on the honor roll of the war where it properly belongs and we are now satisfied. Marking the achievement of one of our kind, in fitting memory of his sacrifice in the flower of his youth, American medicine ought now erect a tablet in the town where Dr. Fittsimons fell.—*Medical Pocket Quarterly.*

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chronicle of Illinois progress is a record of work
done for humanity by the profession. These
annals are a bequest of value for posterity: an
heirloom for the children, relatives and friends
of former and present members of the Illinois
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PRAIRIE WITCHES AND THE WITCH-
MASTER WERE TABLE TALK A CEN-
TURY AGO IN HERRIN COUNTY*

THE WITCHES BROADCASTED "THE JERKS" AND
THE "WITCHMASTER" CURED THE TWITCHES

Witchcraft was one of the devastating mental
plagues with which reputable doctors of the Illi-
nois Country had to contend a hundred years
ago, and, to be accurate, even less, practically up
until the last 40 years.

For as late as 1835, according to chronicle, and
even later insofar as old wives' gossip is con-
cerned, there were "a great many witches in
Williamson County." According to "The Bloody
Vendetta" or "The History of Williamson
County," as published by H. W. Trovillion of the
"Herrin News," at Herrin, Ill.:

"The way these women got to be witches was
by drawing their own blood, writing their own
names in it, and giving it to the devil, thus
making a league with him. The most noted
witch in this county was an old lady by the
name of Eva Locker, who lived on Davis' prairie.
She could do wonders, and inflict horrible spells
on the young, such as fits, twiches, jerks and such
like. Many an old lady took the rickets at the
mere sound of Eva Locker's name. When Eva
Locker inflicted a dangerous spell, the parties
had to send to Hamilton County for Charley
Lee, the great witchmaster, to cure them. This
Charley did by shooting Eva's picture with a
silver ball and some other foolery. It was a
nice sight to see this old fool set up his board
and then measure, point and cypher around like
an artillery man planting his battery, while the
whole family stood around, veiled and with the
solemnity and anxiety of a funeral."

Now the belief in witchcraft, so records tell,
prevailed in the east side of Herrin county at
a very early day. To the witch was ascribed
the usual powers of inflicting strange diseases
destroying cattle, by shooting the beasts with
a ball of hair; and also the power of placing
spells and curses on guns and other shooting
pieces. More ample capacity for mischief can
not be imagined. One of the hidden mysteries
understood by none but the witches was the means
by which these afflictions were laid upon man,
beast and inanimate objects. Since such black
magic is non-existent except in charlatan adver-
tisements it is small wonder that the mystery
still pursues the memory of witches.

Eva Locker seems to have been the queen
bee of all the necromancers. Not a wizard could
affect her by so much as a pennyweight. Writing
further Trovillion says:

"None of the wizards could do anything with
Eva. Before this great wizard only the famous
wizard of Hamilton County, Charley Lee, the
witchmaster, was the only one who could avail.

"Here are some of the superstitions: (1) When
a man concluded that his neighbor was killing

*Editor's Note: This is one of the articles received as a
result of the newspaper letter from the Medical History Com-
mittee.

too many deer around his field, he would spell the neighbor's gun. This was done by going out early in the morning, and, on hearing the crack of the rifle, the irate one would walk backwards to a hickory wythe into which he would tie a knot in the name of the devil. This would render the offending gun worthless until the knot was untied, or it might be taken off by putting nine new pins in the gun and filling it with a peculiar kind of lye, then corking it up and setting it away for nine days. One man told me that he had tried this and that it had broken the spell. Just before that he had drawn right down on a deer, not over twenty steps distant, and never cut a hair. (2) Cows when bewitched would go into mudholes and no man could drive them out, but the witch, or wizard, by laying the open Bible on their backs, could bring them out; or, 'cutting off the curls out of their foreheads and their tails off, and putting nine pins in the tails and burning off the curls with a poker' might act as a first aid measure as this action would bring the witch to the spot and allow of the matter being settled as our fathers settled their business. (3) Witches were said to milk the cows of the neighbors by means of a towel hung up over the door, when the milk was extracted from the fringe.

"Of course if such deviltry were practiced nowadays the parties involved would be arrested for theft. Laws against cruelty to animals have supplanted herds of bob-tailed cows.

"The idea prevailed also, that the devil would appear upon a man's reading certain books used by hard-shell Baptists.

"Happily for the honor of human nature the belief in those foolish and absurd pretensions have been discontinued during the last forty years by an enlightened public. For those strange diseases that were so little understood, medical science has revealed remedies. The spell has been broken from the gun forever by untying the knot of ignorance and permitting the light of reason to flood the mind. The practice of locating water by means of a forked switch flourished from 1850 up until 1860 but was palpably so foolish that this idea died with small opposition to its passing.

As a result statistics from Williamson County, for which credit must be given also to Trovillion, narrate that:

"This county has suffered less from pesti-

lence, failures and drouth than any county in the state. The seasons are good and people generally healthy. Doctor bills for the entire county do not exceed \$40,000 annually. In July, 1849, cholera made its first appearance, but caused only a few deaths. Reappearing in 1866 for a stay of six weeks, over twenty-five persons were taken away and the city of Marion vacated. Notable among the deceased were the 'three beautiful Ferguson girls, ladies without a parallel in all the arena of beauty and refinement.' On several occasions Williamson County has been invaded by small pox, but without a large death rate until 1873, when many on the south section died. Mortality rate in Williamson County is three per cent on the basis of a population of 23,000."

DUQUOIN LAWYER PAYS TRIBUTE TO PIONEER DOCTORS*

CONTRIBUTION FROM LAW TO MEDICINE THROWS LIGHT ON JACKSON COUNTY "SADDLE BAGS"

H. E. Kimmel, attorney-at-law in DuQuoin, sends in notes about some early physicians that may be of inspiration to others, both of the profession and among the lay friends of the science of medicine, for the obtaining of material for "The History of Medical Practice in Illinois."

"Dr. Conrad Will, of Philadelphia, a doctor, a statesman, civicist and manufacturer of salt," writes Mr. Kimmel, "established Brownsville, Jackson County, in 1816. This town, now out of existence, was about four miles west of Murphysboro. Dr. G. T. Wall, of Rhode Island, settled in what is now known as Old DuQuoin in 1840, and practiced there until 1890. One of his granddaughters, Mrs. F. E. Pope, lives now in Spokane, Wash.

"Another pioneer physician was Dr. Melton or Milton Mulkey, of Kentucky, who came to Illinois in 1817 from Kentucky and settled in Franklin County on a site later named Mulkeytown in his honor. Dr. Louis Dyer and Dr. Tetrick were other pioneers as was also Dr. McLean, father of Dr. Guy McLean.

"One of the first homeopathic physicians to reach Illinois was Dr. John Pyle, Jr., who with his father, Dr. John Pyle, Sr., were soldiers and physicians in the British Army in North Carolina, during the War of the Revolution. The junior Dr. John Pyle went to Christian County,

*Editor's Note: This is the second of the articles received as a result of the newspaper letter sent out by the Medical History Committee.

Kentucky, in 1806 and came to Illinois three years later, going back shortly afterwards because of Indian troubles. In 1817 he started again for Illinois, but died before he could arrive here. The family located in DuQuoin, however, and two sons, Dr. Octavius Pyle and Dr. Hiram Pyle, continued the father's practice. Their knowledge of medicine was dynastic, and by word of mouth, handed down from several generations. Dr. John Pyle, Jr., restricted his practice to the immediate family. In 1854 Dr. Octavius Pyle went to Grant City, Worth County, Mo. Hiram followed him only to return to DuQuoin and mix farming and doctoring until his death in 1875. He was assisted by his daughter, Mrs. Lucinda Gill, who though 87 years of age is still living. One of William Pyle's daughters married Dr. Joseph Brayshaw, who settled in DuQuoin about 1840."

This illuminative letter from Mr. Kimmel, containing as it does possible addresses of the descendants of these men, affords an excellent model for imitation if those early medical men are to receive justice at the hands of their professional descendants. Let everybody take hold, make a little effort and send in some data, especially photographs, and if possible old diaries, prescription records and the like.

REPORT OF LAY EDUCATION COMMITTEE AS PRESENTED TO THE COUNCIL OF THE ILLINOIS STATE MEDICAL SOCIETY, SEPTEMBER 3, 1924

This is to be an unvarnished account of the activities of this committee in the five months since it was taken over by your present director. A part of the Lay Education Campaign is in excellent condition; some of it is not. But before going into the details pro and con, I want to make clear that whatever you find here that is not well done, that is incomplete, or ill advised, is not in any sense to be charged to the account of the medical profession in Illinois.

I have made no reasonable request of any member in good standing of the Illinois State Medical Society which has been refused. Your men have good naturedly devoted time, money, and energy to the task of giving a layman an intelligent concept of what your problems are and in what phases of them the lay public should be instructed.

This campaign, which originally took into con-

sideration only the formation of a state press bureau for general information on medical subjects, has extended itself into five general departments.

I. THE SPEAKERS' BUREAU.

Forty-one definite appointments have been made in September, and sixty-seven in October, for our members to appear before various lay organizations such as Lions Clubs, Kiwanis, Optimist, Rotary, Parent-Teachers organizations, Woman's Clubs, the Farm Bureau and fraternal and trade organizations. Of this total of 108 for the two months, fifty-one are in Chicago, and its suburbs, and fifty-seven down-state. Promises have been made to supply speakers to a total of 382 organizations before May 1, but except by special request no appointments are definitely scheduled more than sixty days in advance.

A total of 194 apparently competent men have indicated their willingness to serve as speakers in the bureau and it is our purpose to call upon them from one to four times each. Many undoubtedly capable speakers I have not had the opportunity of reaching and it is hoped to reach them and to use them in the second half of the year's program.

There are not included in this total talks which I have myself agreed to give before lay organizations on the two subjects, "Meeting You Half Way"—discussing the value to a community of co-operating with its own doctors—and "The Romance of Modern Medicine"—which treats of the profession as it appears to an outsider. Appointments are also to be made in Chicago for Miss Voltaire, local detail worker of the Chicago Medical Milk Commission.

The schedule is so planned that ten per cent. of the talks will be given in September; twenty per cent. in October; twenty-five per cent. in November; five per cent. in December; ten per cent. in January; fifteen per cent. in February; ten per cent. in March; and five per cent. in April. Of the twenty-two twenty to thirty minute talks to be offered to the public, nineteen are now ready and have been tried out, and the remainder are in such shape that they can be whipped into form at twenty-four hours notice. Talks on special subjects can also be provided at three weeks notice. The list of subjects follows:

- 1, THE ROYAL ROAD TO HEALTH.
2. THE BEST WAY TO BETTER BABIES.

3. SPECIAL MEDICAL SUBJECTS.

- (a) The Truth About the Ductless Glands.
- (b) The Twentieth-Century Child.
- (c) Outposts in the Fight Against Cancer.
Outposts in the Fight Against Tuberculosis.
Outposts in the Fight Against Diphtheria.
Outposts in the Fight Against Diabetes.
Outposts in the Fight Against Old Age.
- (d) What Can We Do for the Subnormal Child?

4. SOCIAL, ECONOMIC, AND CIVIC PHASES OF MEDICAL SUBJECTS.

- (a) Law Enforcement from the Point of View of 8,000 Doctors.
- (b) The Case Against Bureaucracy.
- (c) Food Facts and Community Responsibilities.
- (d) A Square Deal for Your Son and Daughter.
- (e) Community Control of Epidemics.
Community Control of the Narcotic Problem.
Community Control of Social Diseases.
- (f) Meeting You Half Way.

5. PROFESSIONAL SUBJECTS STRESSING THE HUMAN INTEREST PHASE.

- (a) Medicine as a Vocation and an Avocation.
- (b) The Romance of Modern Medicine.
- (c) Why It Takes Eight Years to Make a Doctor.
- (d) What's New in the World of Medicine.

II. THE RADIO.

Between May 16 and July 4 eight talks were given from WLS Fridays, at the Home Institute Hour, 3:45 to 4:45. We have been offered by their medical department the same courtesy for the coming year. Arrangements have been made for a total of about 140 ten-minute radio talks to be given from KYW, WMAQ, WEBH, and WQJ in Chicago, WTAS in Elgin, and KSD in St. Louis.

Fifty-eight of these talks are now ready, material is on hand for thirty-five more, and interviews must be made for the balance of forty-seven. It is planned to run these talks as specials

on the various programs, assuming that they will have greater attention value than by following the form of the U. S. Bureau of Public Health and other welfare agencies. Applause cards will be furnished the membership of each branch and county society. It is hoped that your members will listen in to these talks and give us the benefit both of their praise and their criticism. We shall not begin our active radio program until static difficulty has been minimized. Sixty-two men have volunteered to assist us in broadcasting these talks. At least twice as many are needed.

III. MAGAZINES.

Material is being prepared and some first articles have been accepted for series to run in the following magazines, whose publishing offices are in Chicago: *Social Progress*, *Junior Home Magazine*, *Extension Magazine*, *Woman's Weekly*, *Woman's World*, *Manufacturers News*, and *Commerce*. The combined circulation in Illinois of these publications is estimated at 350,000.

IV. NEWSPAPERS.

The showing in this department is not good, largely owing to the fact that it has been neglected for work on the Speakers' Bureau definitely promised for September. However, 117 of the newspapers of the state have used in some shape material supplied them from this bureau. The total list, exclusive of trade and foreign language publications, numbers around 844. It is planned to organize the journalistic work around specific interests and needs of each community, a proceeding which will take rather more time but which experiments to date have proven will insure better co-operation from the editors who give us space and will make possible more valuable reader attention.

V. BRANCH AND COUNTY SOCIETY SERVICE.

In the interval since the state meeting at Springfield I have been able to devote to this project a trifle more than half of my time and have visited medical societies in Vermilion, Champaign, St. Clair, Whiteside, Rock Island, La Salle, Sangamon, and Coles Counties, as well as fourteen of the affiliated groups in Cook County. I have interviewed 478 doctors, tabulated the qualifications of each, and have received promises from 470 to take a definite part in this campaign. From the material that has been compiled so far, and from highly gratifying experiments made in that direction, we feel justified

in offering service to the societies along the following lines:

(1) A clearing house for the program committees. Lists are available of men who have done distinctive work in the component organizations. These are offered for the convenience of program committees wanting suggestions during the coming year. Names of lay persons having a message of interest for medical men will also be on file.

(2) Copy and service for periodical health examination letter campaigns.

(3) Material for health week drives or special campaigns of value to the local medical societies, including posters, moving picture films, lantern slides, novelty announcements, and made-to-order write-ups. Part of this material is borrowed, part of it can be purchased at your order. Give us full details and we can give you intelligent assistance.

(4) Publicity service especially planned for star programs or important campaigns of all affiliated societies. The best work will be done in this service, as in the others offered, if adequate time is allowed for the preparation of material.

In the way of general service the committee has received forty-nine requests from outside the state for definite assistance in the way of material, lay-outs, and plan work. These came from Wisconsin, Michigan, Indiana, Missouri, Colorado, Texas, Kentucky, South Dakota, and Ohio.

The least showy part of the work on the Lay Education Campaign lies in the months behind us. In bringing the material that has been gathered to the attention of the general public, we will undoubtedly make many mistakes. If this committee can count on as generous co-operation in the next three or four months as has been given by the Illinois State Medical Society during the trying period of preparation, we believe that these mistakes can be minimized and that at worst they will occur no more than once. However, let us be perfectly frank about what we can do, what we should do, and what we hope to do for lay education in Illinois. By the first of January our activity can be made thoroughly familiar to all the members of your own organization. By the end of the year most of the reading and intelligent public will have a fair idea of what we are trying to do. It will take five years at the least of conscientious, consistent,

and persistent hard work to make this campaign of moment in molding public opinion. Education is cumulative in its results, like a good many of the treatments that you know more about than I.

LAY EDUCATION COMMITTEE.

B. C. KELLER, Director.

THE MEDICALLY UNEDUCATED ARE NOT EQUIPPED TO PASS UPON WHAT IS OR IS NOT CANCER

Cancer has a far higher place in the death rate of men and women over forty years of age than has pneumonia, tuberculosis or typhoid fever. One woman out of every eight, and one man out of every fourteen in the "forty-plus" classification, dies of cancer in some form. Literally cancer is the "gum-shoe" enemy of the race as its approach is practically painless. Conditions that demand early investigation by the family physician are suspicious discharges as signs of internal cancer, and lingering warts, moles, or lumps as signs of external cancer.

In the early stages cancer is curable. Few diseases are more exploited by quacks and charlatans than is cancer. The non-suspicious nature of its seedling state make this an especially profitable field for the unscrupulous. There is no cancer remedy that is applicable by the inexpert. Cancer is not an affliction to be meddled with by "home treatments" of any sort. Surgery or cautery by radium, or by the x-ray or combinations of these methods in the hands of skilled men or women are the methods by which cancer may be stamped out. It has been well said that "where cancer is concerned, he who hesitates is lost."

Danger signals that hold possibilities of cancer include:

- (1) Any lump, especially in the breast.
- (2) Irregular bleedings or discharges.
- (3) Any sore that does not heal—especially about the tongue, mouth or lips, and that may be the result of irritation from broken teeth or mechanical dental inserts.
- (4) Persistent indigestion with loss of weight.

The medically uneducated are not fitted to pass upon what is or what is not cancer. Those who suspect a cancerous infection should go immediately to a reputable physician or to a standard hospital for thorough examination and diagnosis.

A NEW CHAIR AT JEFFERSON MEDICAL COLLEGE.

In recognition of the far-reaching developments of bronchoscopy in the diagnosis and treatment of diseases of the lungs and of esophagoscopy and gastroscopy in the diagnosis and treatment of diseases of the esophagus and stomach, the board of trustees and faculty of the Jefferson Medical College have created a new chair to be known as the Department of Bronchoscopy and Esophagoscopy. Dr. Chevalier Jackson, formerly professor of laryngology in the Jefferson, has been elected to the professorship of the new department. Dr. Fielding O. Lewis has been elected to fill the chair of laryngology vacated by Dr. Jackson.

RESOLUTION ON DEATH OF DR. GEORGE ELMER LYON.

WHEREAS: Dr. George Elmer Lyon was a man true to his ideals; was kind and faithful to his patients; was public spirited; was always thoughtful of his brother physician in his relations with him; was a devoted husband and father; was an ideal to and an inspiration for the boyhood of our community, and,

WHEREAS, he was a true, noble and capable physician; a member of the Decatur Medical Society, faithful attendant at all meetings of the society, intensely interested in medicine, and,

WHEREAS, the Lord Almighty has seen fit to take him from us and make him a true physician—one of the spirit.

Be it resolved, That we, the Decatur Medical Society, herein assembled, do offer to the bereaved wife and children our most sincere sympathy and our expression of deep grief which we all feel in this hour of sadness; that we assure them that our brother physician and medical associate will be missed as the years go by as there will exist an empty seat among us, and

Be it further resolved, That the resolution be spread among the minutes of this Society; that a copy be sent to the family, to the Decatur newspapers and to the ILLINOIS MEDICAL JOURNAL.

WE ARE THE MOST LAWLESS COUNTRY ON EARTH

Judge Alfred J. Talley, of New York, a man of immense experience at the induction, August 11, into the office of Judge William Allen, recently appointed to the general court sessions court of New York, says:—

One of the things that you will come to learn is that you have come on the bench of the greatest criminal court of any kind in the United States, at a time when this country is suffering under an indictment which proclaims it to be the most lawless on earth.

You will find that the United States must plead guilty to that indictment. Most of the desperate criminals are mere boys. You will be heartbroken at discovering that the vast majority of defendants are under nineteen or twenty years old. That is going to be your most distressing problem.

At the meeting of the American Bar Association in July, in his report on Criminal Procedure, former Governor Whitman of New York showed that the number of criminals in this country is increasing steadily. Mr. Casper H. Yost at the same meeting said: "Life and property are less secure than in any other country on the globe that is not in a state of barbarism." The value of property stolen during the last decade has increased ten-fold; during the last twenty years the homicide-rate has more than doubled."

"The assertion of Judge Talley will not be ascribed to a tendency to sensationalism," writes the Editor of the *New York World*, "The tragedy of it is that no one will challenge the assertion. The records speak for themselves, and there is no escape from them." The *New York Times* in an editorial entitled "America First" remarks: "Ten thousand murders a year, and other crimes of violence in proportion! Does any one feel like boasting of our growth, wealth, population, great philanthropies?"

Doctors have long pointed out to the public the reason for this state of affairs. How long before the American people will give the proper consideration to the whys and the wherefores for this increase in crime? How long before our nation will come to understand it?

An ulcerating chancre or chancroid in the case of a man at a cancerous age, may closely simulate a cancer.—*Urologic and Cutaneous Review.*

CONTRACT SURGEONS

ILLINOIS DOCTORS IN THE CIVIL WAR—1861-65

Sim, Thomas Springfield
 Haven, S. R. Springfield
 Metcalf, Richard L. Springfield
 Davis, Charles Springfield
 Trowbridge, Silas T. Springfield
 Phipps, John M. Springfield
 Bell, Sanford Springfield
 Hamilton, Samuel M. Springfield
 Dennison, Charles N. Decatur
 Buck, Wilber F. Marengo
 Spalding, Clarence N. Rockford
 Everett, Samuel W. Cairo
 Stahl, Daniel Quincy
 Gulich, Emil Alton
 Craig, William D. Alton
 Allen, William A. Alton
 Payne, Henry R. Marshall
 Ritchie, Robert L. Warsaw
 Reeder, Isaac H. Wenona
 Nichols, William P. Walnut Hill
 Craig, John W. Cairo
 Heise, A. W. Joliet
 Long, Owen M. Jacksonville
 Hunt, Oliver G. Sandwich
 Hopkins, Myron Aurora
 Dewey, George H. Collinsville
 Sulzer, Abraham A. Collinsville
 Briggs, William D. La Salle
 Wardner, Horace Chicago
 Burton, Elijah P. Chesterfield
 Farris, James H. Leland
 Swan, Samuel W. Leland
 Newell, William M. Paris
 Cady, William F. Rock Island
 Plummer, Samuel C. Rock Island
 Thompson, Charles A. Urbana
 Law, David H. Dixon
 Hunt, J. Spafford Dixon
 Salter, Henry F. Moline
 Allen, Geo. T. Springfield
 Stephenson, Benj. F. Springfield
 Kersting, Fred W. Springfield
 Chafer, N. F. Shelbyville
 Drake, Moses C. Elkhart
 Boyd, Henry W. Alton
 Davison, Samuel A. Bunker Hill
 Kelly, John Freeport
 McKim, William J. Freeport
 Puck, Harmon Marengo
 Van Valz, John W. Freeport
 Lake, Leonard L. Freeport
 Bond, John Bradford
 Wright, O. P. B. Bradford
 Chaper, Noah F. Shelbyville
 Kellogg, Lucius D. Canton
 Tompkins, Charles B. Lewiston
 Penniman, Henry H. Belvidere
 Buck, Wilbur P. Rockford
 Davis, Henry W. Paris
 Ormsby, Orange B. Greenville
 Hippolite, William W. Ives Grove, Wis.
 Henderson, Eliel F. Randolph County
 Burr, Chauncey S. Randolph County
 Watson, Francis W. Marengo
 Plake, Samuel C. Chicago
 Bogue, Roswell G. Chicago
 Bailhache, Preston H. Springfield
 Little, Charles F. Kewanee
 Southwick, Gilbert W. Arcadia
 Goodbrake, Christopher Clinton
 Richards Rolla T. Clinton
 Bailey, Frederick K. Joliet
 Richards Rolla T. Clinton
 Seeley, Eden M. Mason County
 Reat, James J. Mt. Carmel
 Muns, Carl Mt. Carmel

Tenhook, Samuel B. Paris
 Reat, James L. Paris
 Burns, James Paris
 Link, John E. Paris
 Coatsworth, George Chicago
 Woodward, Benjamin Galesburg
 Fitzer, John Belleville
 Collins, Russell J. Pocahontas
 Brown, Isaac W. Sparta
 Wyner, William D. Chicago
 Gregg, Patrick Rock Island
 Lee, Silas J. Chicago
 Taylor, John S. Fayette, Mo.
 Stinson, Charles W. Canada
 Jared, Lorenzo D. Morrison
 Wagner, William Chicago
 Fuller, Sidney L. Chicago
 Stock, Carl B. Chicago
 Thomas, Jerome B. Kewanee
 Wild, Theodore Chicago
 Winans, Henry C. Kenia
 Mount, Joseph Rockford
 Clark, Dexter S. Rockford
 Brown, Robert H. Mahomet
 Clark, Dexter S. Rockford
 Brown, Myron S. Urbana
 Bowman, Edward H. Edington
 Barrell, Henry C. Springfield
 Dickertoff, A. J. Jerseyville
 Bringham, James Jerseyville
 West, William F. Elkhart
 Kelly, A. W. Elkhart
 Kemper, John Industry
 West, William F. Elkhart
 Gordon, William A. Chester
 Moore, David N. Industry
 Turner, John J. Industry
 Feland, William Industry
 Marshall, Joseph D. Industry
 Verrill, Emery A. Vienna
 Whitnell, David T. Collinsville
 Sulfrass, Gustave Collinsville
 Van Dyke, Ebenezer Collinsville
 Dunn, David M. Bethalto
 Edgar, William S. Jacksonville
 King, William H. H. Jacksonville
 Cristy, George B. Franklin Grove
 Gilmer, John J. Carrollton
 Rex, George P. Perry
 Abbott, Nathan W. Salem
 May, Edwin Salem
 Wallace, Hugh L. Marengo
 Antis, Henry T. Griggsville
 Rex, Oliver P. Griggsville
 McNeill, Francis A. Griggsville
 Herrick, Orson Q. Kansas
 Hostetter, John L. Mt. Carroll
 Barker, Franklin Oregon
 Hewitt, George W. Franklin Grove
 Chenoweth, William J. Decatur
 Hawley, Sidney B. St. Charles
 Tidball, David C. Vandalia
 Wylie, Jonathan D. Oakland
 Watson, Louis Quincy
 Githens, Wm. H. Quincy
 Ritchie, Adelbert L. Dallas
 Trust, Jacob Dallas
 Young, Delos W. Aurora
 Lytle, Francis W. Troy
 Hatch, Jethro A. Aurora
 Hawley, Sidney B. Aurora
 Pierce, William P. Lisbon
 Charles, Edward W. Waterloo
 Humeston, Luther F. Chicago
 Morgan, Albert W. Galveston
 Clark, Elijah A. Wheaton
 Murphy, John Wheaton
 Mesler, Henry T. Wheaton
 Marlin, Keysy S. Wheaton

Teed, John L.	Mendota	Lee, Ethan A.	Mattoon
barrell, Henry C.	Springfield	Wilkins, Thomas	Vandalia
Stewart, Dudley W.	Chicago	Lycan, Leander	Paris
Tichenor, Edward J.	Newton	Johnson, Charles S.	Paris
DeBall, James M.	Lima	Roler, E. O. F.	Chicago
Blake, Samuel C.	Chicago	Tompkins, Charles B.	Lewistown
Clark, Charles M.		Winne, Charles	Somonauk
Crozier, James	Waveland, Ind.	Smith, John T.	Cedar Rapids, Iowa
Woodward, William	Belvidere	Newell, Orlando W.	Marshall
Thompson, Samuel W.	Salem	Whitmire, James S.	Metamore
Elliot, William M.		Thompson, Francis B.	
Graham, William	Mt. Carmel	Pearce, Joseph R.	Danvers
Turner, Will E.		Weeks, Jerome F.	La Salle
Edwards, Joseph W.	Mendota	Poindexter, Randall	Shawneetown
Harvey, William P.		Marsh, Alfred F.	Harrisburg
Gray, William M.	Decatur	Morgan, Uriah	
Carle, Charles	Tamara	Morris, George	
Short, George W.		Zearing, James	Dover
Warmoth, George M.		Blood, Henry S.	Chicago
Coleman, John W.	Monticello	Crossley, George W.	Princeton
Powell, Edwin	Chicago	Bishop, Isaac N.	Santa Anna
Fitch, Thomas D.		Crawford, Henry M.	St. Charles
Hanson, Zenas P.	Buckstone, Me.	Merrifield, Emery A.	Elgin
Roler, E. O. F.	Chicago	Heidemann, George F.	Chicago
Mills, Andrew J.		Haslett, J. D. S.	
Goddard, James	Sparta	Keely, A. W.	
Ravenot, Octave P.		Bunce, Charles	Galesburg
Starkloff, Hugo M.	Galesburg	Maynard, H. J.	
Funk, Julius	Cincinnati	Kerr, Charles	Pawnee
Hartmann, Alexis K.	O'Fallon	Gaston, Joseph E.	Knoxville
Starkloff, Hugo M.	Galesburg	Miller, Joseph T.	Glendale
Weitze, Ferdinand		Gray, William M.	Peoria
Merrifield, Emery A.	Elgin	Dodds, Ford S.	Anna
Radmore, Charles C.	Wenona	Charles, Edward W.	Waterloo
Carter, William D.	Nashville	Sheriff, John A.	
Forshe, Thomas W.	Tonica	Norris, Andres S.	Santa Anna
Kittoc, Edward D.	Galena	Clemmons, Leonidas	Chicago
Ormsby, Orange B.	Greenville	Anthony, Julius P.	Sterling
Gaskill, James R. M.		Knapp, George H.	Jerseyville
DePuy, Elias C.	Freeport	McKinney, John W.	Camargo
Bradshaw, Benjamin H.		Cameron, Charles W.	Richview
Carle, Charles	Tamara	Wundt, Charles L.	
DeWitt, Charles M.	Freeport	Bridges, Vernon R.	Mattoon
Webster, John	Chicago	Hatch, Seth C.	Griggsville
Lucas, George L.	Peoria	Grey, William	Decatur
Babb, Timothy	Peoria	McKinney, John	Camargo
Andrews, Luther M.		Lodge, Alexander E.	Marshall
Hill, William	Salem	Hall, Lyman	La Salle
Goslin, Asher	Carmi	Stewart, James T.	Peoria
Shearer, Melville W.	Washington, Ia.	Mix, Henry A.	Oregon
Deshon, Henry H.	Jonesboro	Holten, Noble	Buda
Young, Stephen J.	Terre Haute, Ind.	Pulmmer, William A.	Smithville
Corwin, Eden M.		Roesch, Otto E.	Alton
Medcalf, William H.	Olney	Park, George H.	Chicago
Mercer, Stephen G.	Salem	Brown, Ira	Caledonia Station
Francis, J. F.	Chillicothe	Mesler, Henry T.	
Beatty, Andrew D.	Red Bud	Lynn, Edward E.	
Black, James A.	Salem	Young, John W.	
Farrow, William W.		Pogue, Joseph	Edwardsville
Kendall, Henry W.	Payson	Vogel, Edward	St. Louis, Mo.
Williams, James A.	Lincoln	Stephenson, Robert	
Bane, Garner H.	Liberty	McCord, David O.	York
Pickett, Albert G.	Paris	Fitch, George W.	
Hunt, William C.	Chicago	Bills, A. W.	
Weeks, Jerome E.	La Salle	McVicker, Brock	Chicago
Magee, Thomas L.	Prairie City	Lamphier, Albert H.	Springfield
Scott, John H.	Metropolis	Lynn, Isaiah P.	
Elliott, William H.		Goodwin, Azro E.	
Angel, Leland H.	Aurora	Reece, Madison	
Winchester, Edgar	Elgin	Powell, Edwin	Chicago
Rhor, George W.	Chicago	Durham, Benj., Jr.	Chicago
Guild, Phineas K.	Plainfield	Bucher, Charles A.	Batavia
Humphrey, Wesley		Beers, Edwin A.	McHenry
Arndt, Peter F.		Bond, George O.	Griggsville
Welch, William W.	Amboy	McPherson, Henry O.	Jacksonville
Warmoth, George M.		Rich, Kendall E.	Henry
Harris, James O.	Ottawa	Ellinwood, Charles N.	Chicago
Smith, George O.	Shawneetown	Strong, Henry	Rockford
Zeising, Henry	Peru	Fisher, Chesseldon	Freeport

Coates, Albert L.	Chicago	Helm, Clinton	Byron
Phillips, George W.	Dixon	Winston, Thomas	Mt. Morris
Ravenot, Octave P. F.		Stephenson, Nathan	Fair Haven
Corbus, John C.	Brooklyn	Huyette, Joseph	Camden Mills
Utley, Henry	Como	Hopkins, Samuel A.	Dover
Hatch, Seth C.	Griggsville	Griswold, Charles A.	Fulton
Blades, Franklin	Middleport	Ross, Joseph C.	Waynesville
Babcock, William A.	Onarga	Stewart, Archibald E.	Heyworth
Ridgeway, Emanuel	Morris	Payne, Selden M.	
Balcom, H. S.		Skaggs, Lewis H.	LeRoy
Winnie, Charles		Woodward, George N.	Belvidere
Cowen, Jesse M.	Magnolia	Green, John W.	Marengo
Stoner, John	Minonk	Merritt, Ansel D.	Woodstock
Sigler, William F.		Suiter, Walter F.	Marengo
Allen, Joel		Giddings, Josiah	
Jordan, Thomas M.	Macomb	Martin, Charles	Warren
Moss, Samuel C.	La Prairie	Pierce, Byron G.	
McIntire, Elhu S.	Dallas City	Evans, Moses	Waukegan
Githens, William H.	Hamilton	Sheffield, Daniel A.	Courtland
Creel, Durham M.	Industry	Byers, Frederick	
Young, Stephen J.	Mound City	Willard, Samuel	Bloomington
Wheeler, Thomas J.	Tuscola	Turner, William D.	Cairo
McAllister, Henry C.	Arcola	Davis, Charles	Alton
Abbott, Nathan W.	Alma	Smith, Constantine M.	Carlinville
McDill, David		Lackey, Robert M.	Liberty
Rogers, Ebenezer	Upper Alton	McAllister, Henry C.	Arcola
Barry, Edward L.	Delhi	Barnes, Allen T.	Louisville
Clendenin, Moses W.	Randolph County	Vertrees, Samuel E.	Louisville
Dyer, Lewis	Duquoin	Groves, John N.	Effingham
Hamilton, Samuel		Ledlie, Joseph H.	Pittsfield
Neeley, Isaac M.		May, Edwin	
Groesbeck, John E.	Pecatonica	Icise, Adolphus W.	Joliet
Campbell, Abel	Perry County	Woodruff, Henry T.	
Schlotzer, George	Chicago	Hardwood, Elvis	Joliet
Boerner, Charles E.	East St. Louis	Brown, Albert W.	Wilmington
Brendel, Emil	Peoria	Harvey, George E.	Candem
Bergh, Oscar Julius	Chicago	Roberts, Clarke	Winchester
Brown, John R.	Shiloh Hill	Kimber, Alonzo	Waverly
Deitzel, Herman		Robbins, Henry C.	Newark
Cooper, Esaiias S.	Henderson	Smith, George S.	Jacksonville
McClanahan, John P.	Mercer County	Henderson, Eliel F.	Randolph County
Cuthbert, William L.	Shelby County	Rice, David P.	Monmouth
Cooper, Edwin H.	Clarksville, Tenn.	Hamilton, William	Oneida
Kyle, James B.	Macomb	Stanway, Thomas S.	
McDill, David	Biggsville	Bigger, David P.	Henderson
Hunter, Frank W.	Vermont	Morris, Richard	Ellisville
Marshall, Samuel W.	Sparta	Buck, Sidney S.	Fairview
Marshall, Elijah L.	Keithsburg	VanBrunt, James W.	Bernadotte
Walker, James P.	Mason City	Dyer, Reuben G.	Ottawa
Dieffenbacher, Philip L.	Havana	Freeman, Julius A.	Newark
Southwick, Gilbert W.	Arcadia	Hamilton, Thomas B.	Wenona
Patterson, James X.	Mason City	Potter, Horace S.	Chicago
Hooton, Massena M.	Peoria	Waterman, Alfred	Warrenville
Gregory, John	Farmington	Beggs, George W.	Naperville
Guth, Israel J.	Peoria	Lanphear, Albert H.	Lincoln
Stewart, Elam L.	Carmi	Bettelheim, Bernard J.	Cayuga
Poindexter, John	New Haven	Lee, Ethan A.	Mattoon
Berry, Daniel	Carmi	Ellsworth, P. Harvey	Lincoln
Coatesville, George	Chicago	Roberts, William F.	
Pierce, William P.	Lisbon	Barker, Frederick H.	
Rankin, Andrew C.	Loda	Fellows, A. M.	Lincoln
Forshee, Thomas W.	Tonica	Wright, John	Clinton
Kopp, Frederick E.	Chicago	Coffin, Nelson G.	Monticello
Brudick, Frank N.	Sycamore	Radmore, Charles C.	Wenona
Zahn, John	Shelby	Cary, John	Peoria
Hance, Samuel F.	Aurora	Goodwin, Azro E.	Rockford
Tuttle, Herman B.	Chicago	Conover, Richard A.	Eureka
Thombs, Pembroke R.		Kinnear, Anthony E.	Eureka
Davidson, John B.	Rock Island	Dewey, John S.	Troy
Hinckley, Darwin	Leland	Henley, John E.	Dongola
Scott, John H.	Metropolis	Dewey, George H.	Collinsville
Strong, Henry		Pace, Williamson C.	Ashley
Thompson, Charles A.	Urbana	Plummer, Hiram S.	Mount Vernon
Honnold, Albert M.		Phillips, James	Nashville
LeRoy, David		Swan, Samuel M.	
Phillips, Edgar L.	Knoxville	Rainey, John K.	Salem
Miller, James N.	Tamaroa	Hawley, Thomas S.	Salem
Day, William T.	Raritan	Spalding, John E.	Galesburg

Milliken, Lurth S.....	Wyoming	Danforth, Willis.....	Joliet
Jones, Chas. DeHaven.....	Geneseo	Jenkins, Joseph M.....	Urbana
Phillips, Wesley.....	Burnt Prairie	Birney, Samuel H.....	Kankakee
Mack, Joel M.....	Kankakee	Williams, James A.....	Kansas
Brown, Lucien B.....	Sheldon	Lacrone, John.....	Effingham
Sulcer, Abraham A.....		Thompson, John H.....	
Bailey, William N.....	Kankakee	Huston, William A.....	Macomb
Higgins, James M.....	Griggsville	McNeall, Nathan H.....	Columbus
Van Meter, Henry.....	Williamsville	Scroggs, Robert G.....	Bushnell
Wilson, John F.....	Tallula	Rowe, James J.....	Avon
French, Alvin S.....	Springfield	Bigger, David P.....	Wataga
Copestake, John C.....	West Jersey	Ferguson, Smith T.....	Morris
Moore, Enoch W.....	Decatur	Latimer, Charles C.....	Peoria
Higgins, Charles W.....	Centralia	Pierce, Allen M.....	Tremont
Band, Garner H.....	Payson	Shugart, Joseph.....	
Blalock, Nelson G.....	Mount Zion	Phillips, George W.....	Dixon
Loomis, Clark E.....	Chicago	Watson, Francis W.....	Marengo
Jones, James A.....	Delavan	Hagemann, Francis E.....	Elgin
Barnes, Ira N.....	Decatur	Shephard, Asa E.....	Freeport
Heckleman, John A.....	Decatur	Colling, Russell J.....	
Hosteter, Jos. A. W.....	Decatur	Albin, George W.....	Neoga
Wiley, Martin.....	Trenton	Walston, Robert L.....	Ridge Farm
Hood, Humphrey H.....	Clinton County	Bluhardt, Theo. J.....	Alton
Jennings, Thomas C.....	Clinton County	Boyd, Henry W.....	Bloomington
Reece, Madison.....	Abingdon	Benckerman, Frederick.....	St. Louis, Mo.
Boude, John K.....	Carthage	Meacham, Joseph.....	Waverly
Nichols, Elmer.....	Aurora	McMahon, Robert W.....	Chenoa
Corey, Vaughn B.....	West Point	Boyd, Henry W.....	Chicago
Numroe, Thomas.....	Rushville	Hess, William H.....	Homer
Woods, Reuben.....	Quincy	Emmons, Francis A.....	Chicago
Byrns, George A.....	Cooperstown	VanBuren, Evert.....	Chicago
Guild, Phineas K.....	Aurora	Adair, William R.....	Chicago
Hamilton, James.....	Springfield	Conley, William J.....	Chicago
Wardner, Philip J.....	Chicago	VanBuren, Evert.....	Chicago
Woodmansee, Chas. S.....	Abingdon	Nichols, George W.....	Chicago
Brownell, Seely.....	Chicago	Smith, Frank N.....	Quincy
Knox, William A.....	Virden	Drake, Thomas B.....	
Seamon, Marinus E.....	Shipman	Linn, David C.....	Quincy
Mathews, John P.....	Scottsville	Winston, Thomas.....	Mt. Morris
Norris, Andres S.....	Cairo	Green, Adolphus.....	Warsaw
Allen, Horace R.....	Charleston	Mercer, Samuel D.....	Salem
Phillips, John M.....		Ruck, Harmon A.....	Marengo
Ballou, Alvin.....	Princeton	Jenkins, Joseph M.....	Jefferson
Kelso, Henry A.....		Cox, James C.....	Yatesville
Watson, Francis W.....	Marengo	Spilman, Charles H.....	Edwardsville
Angell, Leland H.....	Aurora	Stillman, Walter D.....	Lacon
Kay, James E.....	Liberty	Cass, Frank D.....	Broadwell
Jessoy, John.....	Aurora	Cole, Frederick.....	Rockford
McElroy, John J.....	Catlin	Plummer, Hiram S.....	Sand Ridge
Mills, Charles H.....	Champaign	Catlin, Edward P.....	Rockford
Wright, Owen.....	Mason	Vanzant, George W.....	
Henton, DeWitt C.....	Myersville	Adair, William R.....	Chicago
Erving, Loel F.....	Kewanee	Chesbrough, Henry T.....	Chicago
Hunt, Charles A.....	Urbana	Scott, Angus.....	Pecatonica
Bridges, Vernon R.....	Mattoon	Kust, Melvin, W.....	Chicago
Mills, Erastus E.....	Lovington	Kuechen, Gustavus A.....	Keokuk, Ia.
Washburn, Thomas D.....	Hillsboro	Shurtleff, Flavel.....	Chicago
Gore, Joel R.....	Chicago	Collins, Russell J.....	Pocahontas
Clark, Anson L.....	Elgin	Hendee, Clark K.....	Nausay
Anthony, Julius P.....		Knoblock, Otto.....	Chicago
French, George W.....	Benton	Hess, William H.....	Cook County
Johns, Harvey C.....	Decatur	Penfield, William P.....	Chicago
Johnson, Darius.....	Pontiac	Godfrey, Henry T.....	Cook County
Wood, Orlando S.....		Parker, Henry M.....	Chicago
Waters, William H.....		Lanphere, Albert H.....	Lincoln
Wilcox, Lewis K.....	Warsaw	Pigelow, Asa.....	Attica, Ind.
Wilkins, David.....	Greenville	Hunt, J. Spafford.....	Sycamore
Barry, Edward L. H.....	Delhi	Irwin, Charles N.....	Mt. Sterling
Sigler, William F.....	Flora	Dow, Darius A.....	Massachusetts
Brown, Joseph.....	Metropolis	Luce, Hiram C.....	Bloomington
Lagore, Enoch.....	New Liberty	Higgins, Charles W.....	Centralia
Rumstad, Samuel J.....		Ensey, John B.....	New Salem
McDonough, A. A.....	Baden Baden	Watts, William.....	Robinson
Baker, Robert F.....	Moline	Kendall, Charles B.....	Chicago
Adair, William R.....	Chicago	Niglas, John N.....	Peoria
Yerkes, Titus P.....		Rankin, Clark D.....	Peoria
Floger, Henry A.....	Fidelity	Stahl, Daniel.....	Quincy
Corr, James B.....	Carlinville	Riggs, Thomas J.....	Chicago

Norred, Charles H.	Dawson
Hard, Abner	Aurora
Crawford, Samuel K.	St. Charles
Nelson, Eugene	St. Charles
Brackett, Charles	Rochester, Ind.
Wilson, William E.	Harristown
Shutt, Augustus A.	Springfield
Higgins, John	Crown Point, Ind.
McCarthy, John	Chicago
Storck, Charles	Chicago
Lake, Leonard	Belvidere
Bailhache, Preston H.	Springfield
Moore, David N.	Carlyle
Parker, Henry	Washington, D. C.
Wehher, Nathaniel W.	Sangamon County
Stangland, Eleazer N.	
Crawford, Samuel K.	St. Charles
Dow, Samuel A.	Galesburg
Andrews, Edmund	Chicago
Woodworth, John M.	
Williams, Hezekiah	Alton
Tansom, Gles P.	
Mackay, David	New York City
Ewen, Clarence	Middletown, N. Y.
Fvans, David J.	Morgantown, N. Y.

CIVIL WAR RECORD OF THE DOCTORS OF WINNEBAGO COUNTY MEDICAL SOCIETY

From the Proceedings of Winnebago County Society, May 14, 1912.

1861 MEMORIAL 1865
Civil War.

C. H. Richings, M.D., Vol. Surgeon, U. S. Vols.
Lucius Clark, M.D., Vol. Surgeon, U. S. Vols.
Amos Scott, M.D., Asst. Surgeon, 153rd Ill. Inf.
J. C. Norton, M.D., Surgeon, U. S. Vol.
W. N. Lyman, M.D., Surgeon 45th Regt. Ill. Vol. Inf.
A. E. Goodwin, M.D., 11th, 69th and 108th Ill. Vol. Inf.
Geo. W. Rohr, M.D., Surgeon 52nd Ill. Vol. Inf.
D. S. Clark, M.D., Surgeon 25th Ill. Vol. Inf.
E. P. Catlin, M.D., Asst. Surgeon 152nd Ill. Vol. Inf.
H. M. Sahin, M.D., Surgeon 52nd Mass. Vol. Inf.
Lucius P. Fitch, M.D., Asst. Surgeon 47th U. S. Col. Inf.
L. Lake, M.D., Asst. Surgeon 13th Ill. Cav. & 15th Ill. Vol. Inf.
W. D. McAfee, M.D., Qr. Mstr. 142nd Ill. Vol. Inf.
Henry Strong, M.D., Asst. Surgeon 74th Ill. Vol. Inf.
C. Helm, M.D., formerly Major 92nd Ill. Vol. Inf.
H. Richings, M.D., formerly A. A. Surg. U. S. A.
Wm. H. Fitch, M.D., formerly 40th Wis. Vol. Inf.
E. J. Clark, M.D., formerly A. A. S., U. S. A.
D. Lichty, M.D., formerly 162nd O. V. I.

CIVIL WAR RECORD OF THE DOCTORS OF AESCULAPIAN MEDICAL SOCIETY

(From Proceedings of Aesculapian Society, May 28, 1903.)

At the breaking out of the civil war Governor Richard Yates appointed a Board of Medical Examiners to pass upon the qualifications of those who desired to serve as Medical Officers. Upon the first Board formed for this purpose, Dr. Wm. M. Chambers, of Charleston, was appointed. Later Dr. Chambers accepted the position of Surgeon U. S. Volunteers, when Dr. Henry W. Davis, of Paris, succeeded him on the Examining Board. Dr. Davis served for a time, but later entered the medical department of the army, and in the end became Surgeon of U. S. Volunteers.

Among the other members of the Aesculapian who

gave their time and services as surgeon or assistant surgeon may be mentioned the following:

Dr. Henry R. Payne, Marshall, 10th Ill. Inf.
Dr. James L. Reat, 21st Ill. Inf.
Dr. John E. Link, 21st Ill. Inf.
Dr. Samuel B. TenBrook, 21st Ill. Inf.
Dr. Ezra A. Steele, 26th Ill. Inf.
Dr. Orson Q. Herrick, 34th Ill. Inf.
Dr. Stephen J. Young, 45th Ill. Inf. and 79th Ill. Inf.
Dr. A. G. Pickett, 50th Ill. Inf.
Dr. Wm. Newell, 79th Ill. Inf.
Dr. Shubal York, 54th Ill. Inf.
Dr. Lee Johnson, 54th Ill. Inf.
Dr. Charles T. Johnson, 54th Ill. Inf.
Dr. J. W. McKinney, 62nd Ill. Inf. and 63rd Ill. Inf.
Dr. V. R. Bridges, 62nd and 126th Ill. Inf.
Dr. H. C. McAllister, 79th Ill. Inf. and 98th Ill. Inf.
Dr. John Lecrone, 135th Ill. Inf.
Dr. Samuel H. Birney, 135th Ill. Inf.
Dr. G. W. Alhin, 143rd Ill. Inf.
Dr. D. C. Jones, 2nd Ill. Cav.
Dr. Wm. Massie, 68th Ohio Inf.
Dr. Charles B. Fry, 21st New York Inf. & 1st New York Eng.
Dr. B. F. Swafford, 11th Ind. Cav.
Dr. D. O. McCord, 66th Ill. Vol. Inf.

FURTHERMORE, THE AESCULAPIAN

Furthermore, the Aesculapian during the Spanish-American War was represented in the medical department by Dr. T. Chester McCord, of Paris, who was Surgeon of the Fourth Illinois Infantry, and Dr. T. C. Stunkard, of Terre Haute, Surgeon 1st Ind. Vol. Inf.

SPANISH-AMERICAN WAR LIST OF MEDICAL OFFICERS APPOINTED FROM ILLINOIS—1898-99

CONTRACT SURGEONS

Captain W. E. Purviance	Dr. John S. ...
1st Lt. David Baker	Dr. Charles J. Rowan
1st Lt. Elmer E. Parsons	Dr. James W. Smith
1st Lt. Eugene R. Whitmore	Dr. Samuel A. Springwater
1st Lt. Arthur W. Morse	Dr. Samuel S. Turner
1st Lt. Kent Nelson	Dr. Charles W. Johnson
Maj. Walter Whitney	Dr. James L. Bevans
Maj. Ralph S. Porter	Dr. George F. Adair
Capt. Wallar H. Dade	Dr. John M. Hewitt
Capt. Elwin W. Ames	Dr. John L. Shepard
Capt. George A. Zeller	Dr. John F. Jones
Capt. Harry R. Lenen	Dr. R. Boyd Miller
Dr. Max F. Clausius	Dr. Wilmont E. Brown
Dr. William G. Gregory	Dr. John S. Marshall
Dr. H. Eugene Allen	Dr. Charles J. Long
Dr. James Bourke	Dr. Franklin T. Wing
Dr. Henry L. Browu	1st Lt. George W. Crahtree
Dr. John G. Byrne	1st Lt. Reuben B. Miller
Dr. George H. Crahtree	1st Lt. James M. Phalen
Dr. William L. Keller	1st Lt. James L. Bevans
Dr. Edgar W. Miller	Dr. George G. Craig
Andersen, Carl H.	King, J. Stebbins
Baker, David	Lapsley, Frederick W. R.
Bath, Thomas W.	Leahy, Jeremiah E.
Bevans, James L.	Lemen, Harry R.
Bluitt, L. Beecher	Mann, Arthur H.
Brown, Henry L.	Persons, Albert E.
Camp, Charles D.	Rowe, Jesse
Dade, Waller H.	Smith, Alden E.
Driver, Gerry S.	Stanton, Samuel C.
Gregory, Verdo B.	Turner, Samuel S.
Hewitt, Henry M.	Walsh, Edmund A.
Jay, Frank W.	Whitney, Walter

SERVED IN PHILIPPINE INSURRECTION SINCE SPANISH-AMERICAN WAR (which closed April 11, 1899)

Adair, George F.	Keller, William L.
Allen, H. Eugene	Marion, George L.

Brown, Wilmont E.	Miller, R. Boyd	Bevans, James L.	Chicago, Ill.
Byrne, John G.	Morse, Arthur W.	Byrne, John G.	Monmouth, Ill.
Clausius, Max F.	Nagel, John S.	Cole, Lorenzo S.	Chicago, Ill.
Crabtree, George H.	Rowan, Charles J.	Curtis, James W.	Chicago, Ill.
Curtis, J. Webb	Schmidt, Henry G. G.	Cuthbertson, Charles M.	Carbondale, Ill.
Gregory, William G.	Shepard, John L.	Cuthbertson, Wm.	Chicago, Ill.
Hall, Andy	Springwater, Samuel A.	Farrell, P. J. II.	Chicago, Ill.
Hewitt, John M.	Washburn, Walter R.	Flint, O. J.	Princeton, Ill.
Johnson, Charles W.	Zeller, George A.	Gregory, Wm. G.	Cave-in-Rock, Ill.
Jones, John F.		Hall, Andy	Mt. Vernon, Ill.

COUNTY RECORDS WILL YIELD WAR SERVICE DATA

By way of emphatic illustration of the fashion in which plain county histories betray the inaccuracy of official war department records, please look at the list of names furnished by the Surgeon-General's office of the list of Illinois medical men serving during the Indian wars, from 1810-13. But two names are given—those of George Fisher and William Reynolds. A chance glance at the History of Sangamon County revealed to the editor, peculiarly enough at first glance, the name of Dr. Gershom Jayne, who had served as surgeon in the War of 1812. Dr. Jayne was the first physician to locate in all that vast district of Illinois lying north of Alton and Edwardsville and west of Chicago. Since we have discovered the name of John Todd.

LIST OF SURGEONS IN ILLINOIS TERRITORY WHO SERVED DURING THE INDIAN WARS—1810-13

Fisher, George	Reynolds, William
Gersham, Jayne	Todd, John

LIST OF SURGEONS IN ILLINOIS WHO SERVED DURING BLACK HAWK WAR—1832

Branson, Hiram K.	Springfield, Ill.
Constant, William	Greene County
Delany, H.	Rushville, Ill.
Dunlap, Adam	Springfield, Ill.
Elkin, Garrett	
Erby, Jacob M.	Shelby County
Gordon, George	Shelby County
Headen, William	Belleville
Higbee, Charles	Morgan County
Leighton, Jonathan	Belleville
Mitchell, William	Morgan County
Pepper, Moscel D.	
Philo, Addison	
Romicis, Richard	Belleville
Rutledge, John B.	Sangamon County
Warsing, John	Sangamon County

LIST OF SURGEONS IN ILLINOIS WHO SERVED DURING MEXICAN WAR—1846-48

Ash, Nathan H.	
Burch, J.	
Elkin, Garrett	
Lester, Thomas B.	Alton, Ill.
Mahan, J.	
O'Neil, J.	
Miller, John L.	
Payton, C.	
Price, Edward B.	
Quinn, Wm. M. P.	
Robinson, James D.	
Thompson, Francis B.	
Turney, Daniel	
White, James H.	Alton, Ill.
Zalviskie, Chris B.	Alton, Ill.

LIST OF SURGEONS IN ILLINOIS WHO SERVED DURING SPANISH-AMERICAN WAR—1898-99

Adams, Charles	Chicago, Ill.
Ames, Edwin W.	Chicago, Ill.
Anthonv, Frank	Sterling, Ill.
Bath, Thomas W.	Decatur, Ill.

Byrne, John G.	Monmouth, Ill.
Cole, Lorenzo S.	Chicago, Ill.
Curtis, James W.	Chicago, Ill.
Cuthbertson, Charles M.	Carbondale, Ill.
Cuthbertson, Wm.	Chicago, Ill.
Farrell, P. J. II.	Chicago, Ill.
Flint, O. J.	Princeton, Ill.
Gregory, Wm. G.	Cave-in-Rock, Ill.
Hall, Andy	Mt. Vernon, Ill.
Hagey, H. H.	Chicago, Ill.
Hepburn, Alex	Chicago, Ill.
Hilgard, George E.	Belleville, Ill.
Hultgen, J. L.	Chicago, Ill.
Keeley, Milton R.	Dwight, Ill.
Lenke, August F.	Chicago, Ill.
Lydston, G. Frank.	Chicago, Ill.
Mahoney, George W.	Chicago, Ill.
Marquis, George P.	Chicago, Ill.
McCord, Thos. Chester.	Paris, Ill.
McMichael, O. W.	Chicago, Ill.
Miller, Edward S.	Chicago, Ill.
Mowry, A. E.	Chicago, Ill.
Nagel, John S.	Chicago, Ill.
Porter, Ralph S.	Chicago, Ill.
Ruehl, M. C.	Chicago, Ill.
Robbins, Charles A.	Dixon, Ill.
Roberts, Thomas F.	Chicago, Ill.
Roheson, T. Jay.	Chicago, Ill.
Rowan, Chas. S.	Chicago, Ill.
Rowe, Jesse	Abingdon, Ill.
Senn, Nicholas	
Shaw, John Bliss.	Joliet, Ill.
Starrett, Carlton E.	Elgin, Ill.
St. Clair, Frank P.	Chicago, Ill.
Sullivan, Thomas J.	Chicago, Ill.
Truellson, O. G.	Chicago, Ill.
Walls, C. Bruce.	Chicago, Ill.
Walsh, Harry	Chicago, Ill.
Washburn, Walter R.	McLeansboro, Ill.
Wesley, Allen A.	Chicago, Ill.
Willard, Wm. G.	Chicago, Ill.
Whiteside, Charles E.	Moline, Ill.

PROGRAM

INTER-STATE POST GRADUATE ASSEMBLY OF AMERICA DIRECTED BY

TRI-STATE DISTRICT MEDICAL ASSOCIATION

Milwaukee, Wis., October 27, 28, 29, 30 and 31, 1924.

General headquarters for all scientific sessions and exhibits held at the Gymnasium Building, Marquette University, special built amphitheater, perfect in acoustics, comforts and conveniences for the physicians.

First Day, Monday, October 27, 1924, 7 a. m.

1. Diagnostic Clinic (pediatrics). Premature infants, their care, feeding and future. Dr. Julius H. Hess, Prof. of Pediatrics, University of Illinois, School of Medicine, Chicago, Illinois.

2. Diagnostic Clinic (surgical). Lesions of upper abdomen centering about the stomach and gall-bladder. Dr. Harry M. Richter, Prof. of Surgery, Northwestern University, School of Medicine, Chicago, Illinois.

3. Diagnostic Clinic (medical). Joint diseases. Dr. Ralph A. Kinsella, Associate Prof. of Medicine, University of St. Louis, School of Medicine, St. Louis, Missouri.

Intermission (Review Exhibits)

4. Diagnostic Clinic (Surgical). Kidney infection or tumor; gall-bladder, gastric or duodenal ulcer,

stomach or colonic carcinoma (in fact, any abdominal tumor). Dr. George E. Brewer, Emeritus Prof. of Surgery, Columbia University, College of Physicians and Surgeons, New York, N. Y.

5. Diagnostic Clinic (medicine). Gastric or gall-bladder diseases. Dr. John A. Witherspoon, Prof. of Medicine, Vanderbilt University, Medical Department, Nashville, Tennessee.

Afternoon Session, 1 p. m.

6. Diagnostic Clinic (surgical). Genito-urinary cases. Dr. William E. Lower, Prof. of Urology, Western Reserve University, School of Medicine, Cleveland, Ohio.

7. Diagnostic Clinic (medical). Diseases of the heart, the lungs, particularly pneumonia, pleurisy, etc.; diseases of the blood, diseases of the biliary passages and liver. Dr. David Riesman, Prof. of Clinical Medicine, University of Pennsylvania, School of Medicine, Philadelphia, Pa.

8. Diagnostic Clinic (surgical). Acute and chronic abdominal cases. Dr. N. J. MacLean, Associate Prof. of Surgery, University of Manitoba, Faculty of Medicine, Winnipeg, Canada.

9. "Pertussis; Treatment by X-Ray." Dr. Julius H. Hess, Prof. of Pediatrics, University of Illinois, School of Medicine, Chicago, Illinois.

10. "The Logic of Gastric Resection in Ulcer." Dr. Harry M. Richter, Prof. of Surgery, Northwestern University, School of Medicine, Chicago, Illinois.

11. "Treatment of Certain Types of Chronic Rheumatism." Dr. Ralph A. Kinsella, Associate Prof. of Medicine, University St. Louis, School of Medicine, St. Louis, Missouri.

12. "Abscesses in the Posterior Mediastinum." Dr. Charles B. Lyman, Prof. of Clinical Surgery, University of Colorado, School of Medicine, Denver, Colorado.

Intermission (Review Exhibits).

13. "Late Results in Fractures of the Femur in Children." Dr. Vernon C. David, Assistant Prof. of Surgery, Rush Medical College, Chicago, Illinois.

14. "Systemic Manifestations of Achylia Gastrica." Dr. LeRoy Crummer, Prof. of Medicine, University of Nebraska, College of Medicine, Omaha, Nebraska.

15. "Non-Malignant Obstruction of the Pylorus in the Aged." Dr. John A. Witherspoon, Prof. of Medicine, Vanderbilt University, Medical Department, Nashville, Tennessee.

16. "Bacteriological and Pathological Studies in Certain Putrid and Gangrenous Processes, with Especial Reference to Fusospirochete Infections." Dr. David J. Davis, Prof. of Pathology and Bacteriology, University of Illinois, School of Medicine, Chicago, Illinois.

Evening Session, 7 p. m.

17. "Some Easily Overlooked Manifestations of Circulatory Failure with Remarks Upon Diagnosis and Treatment." Dr. David Riesman, Prof. of Clinical Medicine, Univ. of Penn. School of Medicine, Philadelphia, Pa.

18. "The Diagnosis of Bone Tumors." Dr. Dallas

B. Phemister, Assistant Prof. of Surgery, Rush Medical College, Chicago, Illinois.

19. Subject later. Dr. Joseph Evans, Prof. of Medicine, University of Wisconsin, School of Medicine, Madison, Wisconsin.

20. "Anatomical Studies of Tuberculosis Infection of the Human Lung." Dr. Edward Miloslavich, Director of Department of Pathology and Bacteriology, Marquette University, School of Medicine, Milwaukee, Wis.

Intermission (Review Exhibits)

21. "Ulcerative Colitis." Dr. Ralph C. Brown, Assistant Prof. of Medicine, Rush Medical College, Chicago, Illinois.

22. "The Principles of the Spread of Infection." Dr. Don M. Griswold, Prof. and Head of Department of Preventive Medicine and Hygiene, State University of Iowa, Iowa City, Iowa.

23. "Skin Reactions." Dr. William F. Petersen, Associate Prof. of Pathology and Bacteriology, University of Illinois, School of Medicine, Chicago, Illinois.

Second Day, Tuesday, October 28, 1924, 7 a. m.

1. Diagnostic Clinic (pediatrics). Breast feeding cases, including babies with their mothers, from birth to the end of the first year. Dr. Laurence R. DeBuys, Prof. of Pediatrics, Tulane University, School of Medicine, New Orleans, La.

2. Diagnostic Clinic (surgical). Chronic arthritis cases. Dr. Leonard W. Ely, Prof. of Surgery, Stanford University, School of Medicine, San Francisco, California.

3. Diagnostic Clinic (medical). Goitre cases—adolescence, toxic adenoma and exophthalmic. Dr. Charles A. Elliott, Prof. of Medicine, Northwestern University, School of Medicine.

Intermission (Review Exhibits)

4. Diagnostic Clinic (surgical). Brain tumors. Dr. Walter E. Dandy, Associate Prof. of Surgery, Johns Hopkins University, School of Medicine, Baltimore, Maryland.

5. Diagnostic Clinic (medical). Infectious arthritis and atrophic arthritis. Dr. Louis M. Warfield, Prof. of Internal Medicine, University of Michigan, School of Medicine, Ann Arbor, Michigan.

Afternoon Session, 1 p. m.

6. Diagnostic Clinic (surgical). Abdominal cases. Dr. John B. Deaver, Prof. of Surgery, University of Pennsylvania, School of Medicine, Philadelphia, Pa.

7. Diagnostic Clinic (surgical). Dr. Dean Lewis, Prof. of Surgery, Rush Medical College, Chicago, Illinois.

8. "The Treatment of Goitre" (slides). Dr. Charles A. Elliott, Prof. of Medicine, Northwestern University, School of Medicine, Chicago, Illinois.

9. "Goitre." Dr. Wallace Irving Terry, Prof. of Surgery, University of California, School of Medicine, San Francisco, California.

10. "Rheumatoid Arthritides." Dr. A. MacKenzie Forbes, Clinical Prof. of Orthopedics, McGill University, Faculty of Medicine, Montreal, Canada.

11. "The Localization of Brain Tumors." Dr. Walter E. Dandy, Associate Prof. of Surgery, Johns Hopkins University, School of Medicine, Baltimore, Maryland.

Intermission (Review Exhibits)

12. Symposium, "Diagnosis of Surgical Lesions of the Upper Genito-Urinary Tract." Dr. William E. Lower, Prof. of Urology, Western Reserve University, School of Medicine, Cleveland, Ohio. Dr. Bernard H. Nichols, Department of Roentgenology, Cleveland Clinic, Cleveland, Ohio.

13. "The Clinical Diagnosis of Pericarditis with Effusion." Dr. Roger S. Morris, Prof. of Medicine, University of Cincinnati, School of Medicine, Cincinnati, Ohio.

14. "Abdominal Contusions Associated With Visceral Injury." Dr. George E. Brewer, Emeritus Prof. of Surgery, Columbia University, College of Physicians and Surgeons, New York, N. Y.

Evening Session, 7 p. m.

15. "Surgery of Jaundice." Dr. John B. Deaver, Prof. of Surgery, University of Pennsylvania, School of Medicine, Philadelphia, Pa.

16. "The Pathological Physiology of Jaundice." Dr. Stanley P. Reimann, Director of Laboratories, Lankenau Hospital, Philadelphia, Pa.

17. "Observations on the Treatment of Goitre Cases." Dr. N. J. MacLean, Associate Prof. of Surgery, University of Manitoba, Faculty of Medicine, Winnipeg, Canada.

18. "Recent Progress in Thoracic Surgery." Dr. Carl A. Hedbloom, Prof. of Surgery, University of Wisconsin, School of Medicine, Madison, Wisconsin.

19. "Neuro-Psychiatric Manifestations of Pellagra." Dr. Marvin L. Graves, Prof. of Medicine, University of Texas, School of Medicine, Galveston, Texas.

20. "Medical Treatment of Epyema With Especial Reference to Chemotherapy." Dr. Ralph H. Major, Prof. and Head of Department of Medicine, University of Kansas, School of Medicine, Rosedale, Kansas. Theater party.

Third Day, Wednesday, October 29, 1924, 7 a. m.

1. Diagnostic Clinic (Surgical). Ulcer of the jejunum and other abdominal cases. Dr. Wallace Irving Terry, Prof. of Surgery, University of California, School of Medicine, San Francisco, California.

2. Diagnostic Clinic (Dermatology). Skin Diseases. Dr. Charles J. White, Prof. of Dermatology, Harvard University, School of Medicine, Boston, Mass.

3. Diagnostic Clinic (Orthopedic). Tuberculosis of the bones, deformities, spastic paralysis, sciatica, etc. Dr. A. MacKenzie Forbes, Clinical Prof. of Orthopedics, McGill University, Faculty of Medicine, Montreal, Canada.

Intermission (Review Exhibits)

4. Diagnostic Clinic (Surgical). Cystocele, rectocele and enterocele associated with and without procidentia uteri in young and old women. Dr. George Gray Ward, Jr., Prof. of Obstetrics and Gynecology,

Cornell University, School of Medicine, New York, N. Y.

5. Diagnostic Clinic (Surgical). Dr. Charles H. Mayo, Mayo Clinic, Rochester, Minnesota.

Afternoon Session, 1 p. m.

6. Diagnostic Clinic (Surgical). Contractures, deformities, tumors, etc., of hand. Dr. Allen B. Kanavel, Prof. of Surgery, Northwestern University, School of Medicine, Chicago, Illinois.

7. Diagnostic Clinic (Surgical). Chronic ulcer of stomach and duodenum. Dr. John F. Cowan, Prof. of Surgery, Stanford University, School of Medicine, San Francisco, California.

8. "The Treatment of Septicaemias and Intoxications in Infants and Children." Dr. Alan Brown, Prof. of Pediatrics, University of Toronto, Faculty of Medicine, Toronto, Canada.

9. "The Value of Gastro-Enterostomy for Duodenal Ulcer." Dr. John A. Hartwell, Associate Prof. of Surgery and Clinical Surgery, Cornell University, Medical College, New York, N. Y.

10. "Rickets." Dr. Laurence R. DeBuys, Prof. of Pediatrics, Tulane University, School of Medicine, New Orleans, La.

11. "Chronic Arthritis." Dr. Leonard W. Ely, Prof. of Surgery, Stanford University, School of Medicine, San Francisco, California.

12. "Intestinal Protozoa—Their Recognition and Relation to Chronic Diseases, with Especial Reference to Arthritis (slides). Dr. John V. Barrow, Los Angeles, California.

13. "The Anatomy and Physiology of the Abnormal Kidney." Dr. Milton C. Winternitz, Dean of Yale University, School of Medicine, Prof. of Pathology and Bacteriology, New Haven, Conn.

Intermission (Review Exhibits)

14. "Ulcer and Cancer of the Stomach." Dr. George W. Crile, Prof. of Surgery, Western Reserve University, School of Medicine, Cleveland, Ohio.

15. "Epidermophytosis." Dr. Charles J. White, Prof. of Dermatology, Harvard University, School of Medicine, Boston, Mass.

16. "Medical Advancement and Research." Dr. Dean Lewis, Prof. of Surgery, Rush Medical College, Chicago, Illinois.

17. "Occult Tuberculosis." Dr. Louis M. Warfield, Prof. of Internal Medicine, University of Michigan, School of Medicine, Ann Arbor, Michigan.

18. "Direct Blood Stream Infection from Tonsils." Dr. Samuel J. Crowe, Clinical Prof. of Laryngology, Johns Hopkins University, School of Medicine, Baltimore, Maryland.

Evening Session, 7 p. m.

19. "Iron in Therapy." Dr. Charles S. Williamson, Prof. of Medicine, University of Illinois, School of Medicine, Chicago, Illinois.

20. Symposium, University of Minnesota Graduate School of Medicine (Mayo Clinic), Rochester, Minnesota. "Renal Calculus." "The Development of Renal Calculus." Dr. Charles H. Mayo, Mayo Clinic, Roches-

ter, Minnesota. "The Production of Urinary Calculi by the Devitalization and Infection of Teeth in Dogs with Streptococci from Cases of Nephrolithiasis." Dr. E. C. Rosenow, Mayo Clinic, Rochester, Minnesota. "Clinical Data with Nephrolithiasis." Dr. W. F. Braasch, Mayo Clinic, Rochester, Minnesota.

21. "The Prevention of Post-Operative Ileus." Dr. LeRoy Long, Dean and Prof. of Surgery, University of Oklahoma, School of Medicine, Oklahoma City, Okla.

22. "The Hypertension Syndrome in General Practice." Dr. John H. J. Upham, Prof. and Head of Department of Medicine, University of Ohio, School of Medicine, Columbus, Ohio.

23. "Traumatism of the Head." Dr. Garfield M. Hackler, Prof. of Surgery, Baylor University, School of Medicine, Dallas, Texas.

24. Symposium, "Contagious and Infectious Diseases." "Endocarditis." Dr. Joseph A. Capps, Prof. of Medicine, Rush Medical College, Chicago, Illinois. "The Diagnosis and Treatment of Gonococcus Infection." Dr. Russell D. Herrold, McCormick Institute for Infectious Diseases, Chicago, Illinois. "The Use of Immune Serum to Protect Young Children from Measles." Dr. George Weaver, McCormick Institute for Infectious Diseases, Chicago, Illinois. "Immunity Results Obtained with Diphtheria Toxoid (Modified Toxin) in the Public Schools of New York City (Manhattan and the Bronx)." Dr. Abraham Zingher, Assistant Prof. of Hygiene, University and Bellevue Hospital, Medical College, New York, N. Y.

Fourth Day, Thursday, October 30, 1924, 7 a. m.

1. Diagnostic Clinic (Pediatrics). (1) Any newborn infant having either erysipelas, umbilical infection, pyaemia, meningitis, arthritis, etc., or any infection of the new born. (2) Case of intestinal intoxication, acidosis in an older child, burn toxemia, any case of chronic infection with possibility of a bacteremia such as an acute mastoid, acute or chronic osteomyelitis, etc. (3) Any infant or child-mongolian, microcephalic, hydrocephalic or spastic degeneration or any case of arrested mental development. (4) Any infant—one or more—marasmus, rickets, pyloric stenosis or an ordinary feeding case, i. e., an infant who is not a marantic but is simply not up to the standard weight and development. (5) Case of eczema in an infant or child. (6) Any case of valvular heart disease. (7) A case of chronic intestinal indigestion in an older child (Coeliac disease). (8) A case of recurrent vomiting or acidosis in an older child. (9) Any type of feeding case. Dr. Alan Brown, Prof. of Pediatrics, University of Toronto, Faculty of Medicine, Toronto, Canada.

2. Diagnostic Clinic (Surgical). Gall-bladder disease, cancer of the rectum or large intestine, osteomyelitis and fracture of the long bones, particularly about the joints. Dr. John A. Hartwell, Associate Prof. of Surgery and Clinical Surgery, Cornell University, Medical College, New York, N. Y.

3. Diagnostic Clinic (Orthopedic). Joint tuberculosis; Pott's disease, hip, knee joint and ankle disease.

Infantile paralysis cases—deformities of various types, both of the extremities and the spine. Dr. Russell A. Hibbs, Prof. of Orthopedic Surgery, Columbia University, College of Physicians and Surgeons, New York, N. Y.

Intermission (Review Exhibits)

4. Diagnostic Clinic (Medical). Chest cases—thoracic aneurism, pleurisy, pneumonia. Dr. Frederick J. Kalteyer, Associate Prof. of Medicine, Jefferson Medical College, Philadelphia, Pa.

5. Diagnostic Clinic (Surgical). Stomach and gall-bladder diseases. Dr. George W. Crile, Prof. of Surgery, Western Reserve University, School of Medicine, Cleveland, Ohio.

Afternoon Session, 1 p. m.

6. Diagnostic Clinic (Surgical). Fractures of the upper extremities. Dr. William Darrach, Dean and Associate Prof. of Surgery, Columbia University, College of Physicians and Surgeons, New York, N. Y.

7. Diagnostic Clinic (Surgical). Thyroid cases. T. B. glands of the neck, esophageal diverticulum, spinal accessory paralysis, thyro-glossal cysts and gall stone cases, particularly with jaundice. Dr. Francis H. Lahey, Prof. of Clinical Surgery, Harvard University, School of Medicine, Boston, Mass.

8. "Modern Aids to Labour." Dr. William B. Hendry, Prof. of Obstetrics and Gynecology, University of Toronto, Faculty of Medicine, Toronto, Canada.

9. "Focal Infection as a Cause of Disease." Dr. Charles H. Mayo, Mayo Clinic, Rochester, Minnesota.

10. "History Taking in Gastro-Intestinal Disease as Based Upon a Working Conception of the Development and the Activities of the Tract." Dr. William Goldie, Associate Prof. of Medicine, University of Toronto, Faculty of Medicine, Toronto, Canada.

11. "The Treatment of Joint Tuberculosis and the Deformities of Infantile Paralysis." Dr. Russell A. Hibbs, Prof. of Orthopedic Surgery, Columbia University, College of Physicians and Surgeons, New York, N. Y.

Intermission (Review Exhibits)

12. "Prophylactic Blood Transfusion as a Routine Measure in Poor Operative Risks." Dr. George Gray Ward, Jr., Prof. of Obstetrics and Gynecology, Cornell University, School of Medicine, New York, N. Y.

13. "Anomalous Peritoneal Bands; Their Clinical Significance and Treatment." Dr. Walter L. Niles, Dean and Prof. of Medicine, New York, N. Y., Cornell University, School of Medicine.

14. "The Diagnosis and Treatment of Tuberculosis of the Seminal Tract." Dr. Hugh H. Young, Clinical Prof. of Urology, Johns Hopkins University, Medical Department, Baltimore, Maryland.

15. "Surgery of the Hand." Dr. Allen B. Kanavel, Prof. of Surgery, Northwestern University, School of Medicine, Chicago, Illinois.

Evening Session, 7 p. m.

16. "The Interpretation of the Cough Symptom."

Dr. Frederick J. Kalteyer, Associate Prof. of Medicine, Jefferson Medical College, Philadelphia, Pa.

17. "Prognosis in Chronic Heart Disease." Dr. Walter T. Connell, Prof. of Medicine, Queen's University Faculty of Medicine, Kingston, Canada.

18. "Food Poisoning." Dr. Milton J. Rosenau, Prof. of Preventive Medicine and Hygiene, Harvard University, School of Medicine, Boston, Mass.

19. "Healing of Fractures" (slides). Dr. John F. Cowan, Prof. of Surgery, Stanford University, School of Medicine, San Francisco, California.

20. "Abnormally Located Goiters." Dr. Francis H. Lahey, Prof. of Clinical Surgery, Harvard University, School of Medicine, Boston, Mass.

21. "The Significance of Impaction and Active Motion in Treatment of Fractures of Hip and Shoulder" (slides). Dr. John L. Yates, Milwaukee, Wisconsin. Dr. G. W. Stevens, Milwaukee, Wisconsin.

22. Symposium, Western Reserve University School of Medicine (Crile Clinic), Cleveland, Ohio. "The Diagnosis and Treatment of Gall Bladder Diseases." "Medical Aspects"—Dr. John Phillips. "The Role of the X-Ray in Diagnosis"—Dr. Bernard H. Nichols. "Surgical Aspects"—Dr. George W. Crile, Prof. of Surgery, Western Reserve University, School of Medicine, Cleveland, Ohio.

Fifth Day, Friday, October 31, 1924, 7 a. m.

1. Diagnostic Clinic (Medical). (1) Nervous manifestations in childhood, e. g., night terrors, wandering away, bad habits. (2) Chronic invalidism in an adult. (3) An early schizophrenic case (dementia praecox). (4) The depressed type of reaction. (5) A case with some paranoiac beliefs. Dr. C. Macfie Campbell, Prof. of Psychistry, Harvard University, School of Medicine, Cambridge, Mass.

2. Diagnostic Clinic (Surgical). Surgical cases. Dr. William J. Mayo, Mayo Clinic, Rochester, Minnesota.

3. Diagnostic Clinic (Surgical). Surgical cases. Professor Theodore Tuffier, Prof. of Surgery, Faculty of Medicine, Paris, France.

Intermission (Review Exhibits)

4. Diagnostic Clinic (Medical). Gastro-intestinal cases (some of these to be duodenal spasm of various origins). Dr. William Goldie, Associate Prof. of Medicine, University of Toronto, Faculty of Medicine, Toronto, Canada.

5. Diagnostic Clinic (Urology). Chronic prostatitis, tuberculosis of the prostate hypertrophy of the prostate. Dr. Hugh H. Young, Clinical Prof. of Urology, Johns Hopkins University, Medical Department, Baltimore, Maryland.

Afternoon Session, 1 p. m.

6. Diagnostic Clinic (Gynecological). Cases of retroversion, prolapse, hypertrophy of the cervix, cystocele, rectocele, etc. Dr. William B. Hendry, Prof. of Obstetrics and Gynecology, University of Toronto, Faculty of Medicine, Toronto, Canada.

7. Diagnostic Clinic (Surgical). Chronic appen-

dicitis. Sir Henry Gray, Royal Victoria Hospital, Montreal, Canada.

8. Diagnostic Clinic (Surgical). Fixation and deformity of the intestine by anomalous peritoneal bands, also hepato-duodenal type (Harris bands). Dr. Walter L. Niles, Dean and Prof. of Clinical Medicine, Cornell University, School of Medicine, New York, N. Y.

9. "Morbid Attitudes and Beliefs." Dr. C. Macfie Campbell, Prof. of Psychistry, Harvard University, School of Medicine, Cambridge, Mass.

10. "Address." Major-General Merritte W. Ireland, Surgeon-General of United States Army, Washington, D. C.

11. "The Transplantation of the Ovary and Its Preservation." Professor Theodore Tuffier, Prof. of Surgery, Faculty of Medicine, Paris, France.

12. "Address." Rear-Admiral Edward R. Stitt, Surgeon-General of United States Navy, Washington, D. C.

Intermission (Review Exhibits)

13. "Address." Sir Arthur William Currie, President of McGill University, Faculty of Medicine, Montreal, Canada.

14. Subject later. Dr. William J. Mayo, Mayo Clinic, Rochester, Minnesota.

15. "Common Abnormalities of the Large Bowel; Their Influence, Local and General, on the Human Economy." Sir Henry Gray, Royal Victoria Hospital, Montreal, Canada.

16. "Massage and Movements in the Treatment of Fractures." Dr. William Darrach, Dean and Associate Prof. of Surgery, Columbia University, College of Physicians and Surgeons, New York, N. Y.

Partial list of distinguished foreign guests who will be present and take part on the program:

Professor Theodore Tuffier, Prof. of Surgery, Faculty of Medicine, Paris, France.

Mr. A. J. Walton, London, England.

Dr. John Hunter, University of Sydney, Sydney, Australia.

Dr. N. D. Royle, Craignish, Sydney, Australia.

R. Hamilton Russell, Esq., F. R. C. S., Melbourne, Australia.

Dr. Carrick Hey Robertson, F. R. C. S., Auckland, New Zealand.

Dr. Ralph Worrall, Sydney, Australia.

Dr. H. B. Devine, Melbourne, Australia.

Dr. J. S. Elliott, Wellington, New Zealand.

BANQUET

General evening meeting for the members of the profession. Guests, including prominent citizens and members, civic bodies of Milwaukee.

ADDRESSES

Monsieur J. Jusserand, French Ambassador to United States, Washington, D. C.

Sir Arthur William Currie, Vice-Chancellor of McGill University, Faculty of Medicine, Montreal, Canada.

Dr. Nicholas Murray Butler, President of Columbia University, New York, N. Y.

Professor Theodore Tuffier, Prof. of Surgery, Faculty of Medicine, Paris, France.

Rear-Admiral Edward R. Stitt, Surgeon-General of United States Navy, Washington, D. C.

Major-General Merritte W. Ireland, Surgeon-General of United States Army, Washington, D. C.

Other distinguished citizens of the world.

Correspondence

THE DOCTOR AND THE STAR SPANGLED BANNER

Champaign, Illinois,

To the Editor: August 23, 1924.

Relative to the article in the August issue by Dr. Daniel Lichty of Rockford "Without the Doctor The Star Spangled Banner Would Never Have Been Born." Dr. Lichty was not far from correct when he says that a medical man was the primary cause of composition of the Star Spangled Banner, our National Hymn.

Following are the facts: At the period of the War of 1812 Dr. William Beanes of Marlboro, Maryland, was in mature life and although a civilian had the ill fortune to be captured during the British raid on Washington and held prisoner of war. Learning of this, Francis Scott Key, a young Baltimore lawyer and warm friend of Dr. Beanes, with an associate, called on President Madison with the facts and received authority to visit the British Commander and negotiate for his friend's release. General Ross, the British Commander, received the two Americans courteously, promised to release the prisoner a little later, but meantime would have to hold both young Key and his associate as hostages for the reason that he was just ready to order a combined attack of Army and Fleet on Fort McHenry that protected the City of Baltimore which he hoped to capture. Accordingly young Key and his associate were placed on board the ship *Surprise* and from its deck were unwilling witnesses of the bombardment that immediately followed. It was the night-view of this bombardment that inspired Francis Scott Key to write our National Hymn and pen such sentences as:

And the rocket's red glare
Bombs bursting in air
Gave proof through the night
That our flag was still there.

By the way two of the most prominent men killed in battle during the War of the Revolution

were physicians. These were Drs. Joseph Warren and Hugh Mercer. Dr. Warren was killed by a musket ball which penetrated his skull at the battle of Bunker Hill, fought June 17, 1775. Dr. Hugh Mercer's skull was crushed in by a clubbed musket in the hands of a British soldier at the battle of Princeton fought January 3, 1777.

Sincerely,

CHARLES B. JOHNSON, M. D.

INFORMATION WANTED

DOCTORS WHO HAVE ACHIEVED FAME IN OTHER FIELDS THAN THAT OF MEDICINE

Chicago, Illinois, July 15, 1924.

To the Editor: I am compiling a book on the subject, "The Doctor in Other Fields," and I wish to make it as representative of those of our American doctors who have attained fame in fields other than that of medicine, for instance: (a) In industry; (b) In science; (c) Belles-lettres, art, music and literature.

I would appreciate it very much if you would canvass your State Medical Society for men who would be entitled to notice in such a book, and secure the pictures of such men, together with a history of their lives and accomplishments, and forward the same to me at your earliest convenience.

Thanking you in advance for the courtesy of any early response to this appeal and urging this action upon you as a duty to the profession, I am

Cordially and fraternally yours,

W. MOORE THOMPSON, M.D.

1234 Marshall Field Annex.

IN OHIO IT IS NOT WITHIN THE PROV- INCE OF THE PUBLIC HEALTH ADMINISTRATION TO TREAT SICK PEOPLE

Columbus, Ohio, Aug. 20, 1924.

DR. H. M. CAMP,

Secretary Illinois State Medical Society,
Monmouth, Illinois:

In reply to your communication and inquiry of August 15, I presume you refer to the legal provisions in Ohio for local health administration. For your information, I am enclosing a copy of the law enacted by the Ohio General Assembly in 1919, in which detailed provisions

are made for the organization of local boards of health and health administration.

Concerning your other inquiries, you may be interested to know that the State Director of Health has repeatedly announced that it is not within the province of the public health administration to treat sick people. Moreover, through cordial contact between the committee on public policy and legislation of the Ohio State Medical Association, and the State Department of Health, the function of public health administration in this state has been confined almost exclusively to health education and disease prevention.

If through over-zealousness some local health commissioner or local board of health have exceeded the fundamentals set forth by the State Department of Health, such illustrations are not believed to be general. Moreover, public health authorities in this state consistently have agreed with and conformed to the policy set forth by the Ohio State Medical Association several years ago through which public health officials shall limit their function to education and disease prevention, and not extend such function to treatment unless such treatment is directly necessary to prevention; for example, threatened epidemics of such communicable diseases where preventives anti-toxin or vaccination are necessary to prevent the spread of disease.

Yours sincerely,

DON K. MARTIN,

Executive Secretary.

CHILD HYGIENE.

August 5, 1924.

To the Physicians of Illinois:

In assuming the position of Superintendent of the Division of Child Hygiene and Public Health Nursing of the Illinois State Department of Public Health, the chief instructions I have received from His Honor, Governor Small, and from Dr. Rawlings, Director of Public Health, are that I shall proceed to formulate plans to give the best possible help in improving the health of the children of Illinois and place the state, where it belongs, in the lead in all child welfare activities.

In order to carry out such a program It will be necessary for us to have the co-operation of all agencies doing child health work in the state in order that there may be no duplication of

effort and all may be working towards a definite goal.

The division is especially anxious to have the co-operation of the physicians and dentists of the state and we feel certain that this will be forthcoming if they understand our plans which are largely educational and wholly preventive.

The Illinois State Medical Society has seen the necessity of educating the public in health matters in order to overcome the propaganda carried on by various cults that have not a foundation of health knowledge. The lay education committee is busy devising means of reaching the people of Illinois.

The easiest entrance into any community for educational health work is through the child health program. Practically every person in any given community is interested in some child in the community and anxious to make that community safe for children. When people realize that the large percentage of illness among children can be prevented by right habits of living and by community supervision over the water supply, the milk supply, the sanitation generally, then the people will be interested in making the community safe for the children. When a community is safe for children it is safe for adults.

The Division of Child Hygiene of the State Department of Health expects to co-operate with local organizations in cities and counties acting in a consulting or advisory capacity. We do not expect to establish any correctional clinics and will assist communities in establishing such clinics *only* with the co-operation of local physicians and dentists. We shall be glad to have any physician write us concerning the child health problems in his community and we shall try to give some constructive suggestions supplemented by visits from members of the staff to study the problems and possibilities and assist in organizing the educational child health program.

We want to help you and we need your co-operation. The plans for the coming year are now being made. After they are completed we shall be glad to give them to any physician interested or to explain them in the columns of the JOURNAL if that is the wish of the Society. I shall be glad to appear before any county or city medical society as opportunity affords to explain our educational program.

I have asked Dr. Whalen to allow me to make this preliminary statement to the State Medical

Society through the JOURNAL, as it seems to me that physicians, by the nature of their training, should be the real directors of all health activities. However, the detail of planning the health program must be left largely to some individual or group appointed to represent the majority. We consider the Division of Child Hygiene of the State Department of Public Health is in reality a committee representing not only the medical fraternity but all the citizens of the state in this very important work and we shall try to carry out your wishes if you will make them known. We want to co-operate with all individuals and organizations doing educational child health work in Illinois.

Sincerely and fraternally,

EDITH B. LOWRY, M.D.

Superintendent, Division of Child Hygiene and Public Health Nursing.

A PROTEST

Aug. 14, 1924.

To the Editor:

In the June number of the ILLINOIS MEDICAL JOURNAL appears an article entitled "The Sheppard-Towner Maternity Legislation, The Children's Bureau, Mme. Kolantai and the use of the Women's Clubs for spreading Bolshevik propaganda," followed (in the same issue) by a reprint of an article from Ford's *Dearborn Independent* of March 15, "Women's Clubs used by Bolsheviks, etc., etc." In our daily press similar articles have appeared from time to time and it is apparent that a regular campaign is on to discredit the women's organizations of this country, a campaign of misrepresentations and falsehood.

These papers have paid no attention to the protests and refutations made by the club women and have produced no proofs to substantiate their charges.

It may interest the medical profession, generally noted for its fairmindedness and sense of justice, to know the "inside story" of this campaign particularly directed against the League of Women Voters, the Women's International League for Peace and Freedom, the National Women's Trade Union League among the women's organizations and the National Council for Prevention of War composed of men and women.

General Fries of the War Department opened

the attack in a speech at Kansas City declaring that the purpose of the National Council for Prevention of War is to establish communism in America. Later Brigadier General Bawley in a speech before the Chamber of Commerce at Columbus, Ohio, made a similar attack on the Council accusing members of the Council of being in the service of Soviet Russia and plotting to overthrow the government by violence.

Let us see who some of the officers and leaders in this Council are: President Hibben of Princeton, Jane Addams, President Lowell of Harvard, Mrs. Maud Woods Parks, Dr. John A. Ryan of the Catholic University of America, Julia Lathrop, President Illinois League of Women Voters, Charles A. Lyman of the Farmers National Union. Do these names suggest Bolshevism, terrorism or treachery?

Soon after these attacks appeared the now notorious Spider-Web Chart purporting to show the interlocking of directorates between the women's organizations, branding this system as communistic. The author was Mrs. Lucia R. Maxwell, librarian in the Chemical Warfare Service of the War Department. This chart caused the War Department great embarrassment and Secretary of War Weeks promised Maud Woods Parks to destroy all copies of the chart and expressed regret that the chart had been instigated by a branch of the War Department.

The chart, however, had already been given wide circulation as part of two articles appearing in the *Dearborn Independent*, March 15 and 22. These articles signed "American Citizen" were written by a Mrs. Haviland Lund, whose accusations were so ridiculous and scandalous that she was repudiated by her own followers.

This in short is an outline of the attack of the Militarists against the organizations who stand for the outlawry of war. Arraigned with them are all the reactionary forces of the country who fight all progressive social legislation, the Child Labor Amendment, the Sheppard-Towner Maternity Bill, Women's Eight Hour Law, etc. This opposition is not fought in the open, discussing these important questions on their own merit but it relies on confusing and intimidating the minds of the great mass of people by labelling them as communistic theories and Bismarckian policies and besmirching the names of their advocates as traitors and spies of Soviet Russia.

Readers who are interested will find a detailed

account of this most ferocious propaganda directed against the women's clubs in *The New Republic* of July 2 and 9, 1924.

HELGA M. RUUD

31 N. State St.

INVITATION FROM THE INDIANA STATE MEDICAL ASSOCIATION

To the Editor: The annual session of the Indiana State Medical Association will be held in Indianapolis, Wednesday, Thursday and Friday, September 24, 25 and 26, 1924.

Some of the most noted clinicians and teachers in the United States have accepted places on the program. Among these are the following: William J. Mayo, Rochester; W. A. Pusey, Chicago; Edward Jackson, Denver; Hugh T. Patrick, Chicago; Ross Hall Skilern, Philadelphia; Joseph C. Beck, Chicago; Evarts A. Graham, St. Louis; Kellogg Speed, Chicago; Andre Crotti, Columbus; Bransford Lewis, St. Louis; Carl A. Hedblom, Rochester; Major Gabriel Seelig, St. Louis; Allen B. Kanavel, Chicago; Willard D. Haines, Cincinnati; Charles F. Hoover, Cleveland; Frank Smithies, Chicago; Louis G. Heyn, Cincinnati; Walter M. Boothby, Rochester; Alfred Stengel, Philadelphia; James B. Herrick, Chicago; Clyde L. Cummer, Cleveland; Chevalier Jackson, Philadelphia, and William L. Benedict, Rochester.

In arranging the program the committee has provided for dry clinics in the forenoon and scientific addresses in the afternoon of each day.

In view of the high character of the program to be presented we feel justified in asking the medical profession outside of Indiana to attend the Indianapolis session and we desire to assure the members of your association that they will be cordially welcomed at Indianapolis on the dates mentioned.

Sincerely yours,

The Indiana State Medical Association

Samuel E. Earp, president.

Charles N. Combs, secretary.

CHRISTIAN SCIENCE: ITS INCONSISTENCIES AND AIMS

Christian Science, if it should succeed in its aims, would not only abolish medical practice and remove the curative and sanative measures which have in modern times made so large a contribution to the amelioration of the conditions of life generally, but it would also abolish scientific research and stop progress in engineering and in the arts. It is true that the most persistent attack of this cult is upon medicine and that it for the present temporizes in regard to other applications of chemistry, physics and biology. Christian Science temples are of material stone and brick, erected by the use of material means, and even heated with material coal and lighted by electricity; Christian Science farmers do not scruple even to apply chemical fertilizers to the soil. One may be astonished at this and wonder why the use of "material" means to stimu-

late the eye and to assist the bodily heat-regulating mechanism are not as wicked works of "mortal mind" as are the application of "material" means to relieve indigestion and to stimulate the heart. One may stand aghast at the sublime inconsistency of a congregation of Christian Scientists of a summer evening cooling themselves with palm leaf fans; but we must remember that Christian Science has no worries over logical consistency, but dismisses logic as an evil work of "mortal mind."

Furthermore, these inconsistencies are not more egregious than certain temporizations in regard to medicine itself. By a general dispensation, Christian Scientists patronize dentists and obstetricians, although in theory these forms of medical assistance are in no different class from internal medicine, and in the thorough-going application of the principles of the cult no "material" means should be used to accomplish any result, the application of fertilizer to the soil being as great a lapse from "divine mind" as the application of quinine or a porous plaster to the animal body.

These inconsistencies cease to be sources of astonishment when we remember that the real animus of Christian Science, aside from its strictly religious and ethical points, is not against medicine as a whole, but against *drugs*, or, in Christian Science terminology, against *materia medica*, and that the vagaries of the Christian Science theory with regard to the phenomenal world are merely naive attempts to justify this animus, and its larger generalizations, even those against surgery, are necessarily only verbal and largely ignorant. (*From "The Utility of Social Nuisances." By Professor Knight Dunlap in The Scientific Monthly, Sept., 1923.*)

THE MANAGEMENT OF ABORTION

Nine hundred and sixty-one consecutive cases of abortion have been subjected to a detailed study by Onslow A. Gordon, Jr., Brooklyn (Journal A. M. A., March 29, 1924). He concludes that all cases of abortion, threatened, inevitable or incomplete, should be treated conservatively until it is demonstrated that conservative treatment has failed. Conservative treatment, properly executed, will fail in something less than four cases out of a hundred. The mortality and morbidity in abortion cases is in direct ratio with the degree of intrauterine intervention. The more manipulation and intervention, the higher the mortality and morbidity. Curettage in abortion transposes many aseptic cases into septic cases. Curettage, therefore, is not only seldom indicated, but is often actually harmful. Conservative treatment has, if possible, a more positive indication in septic cases than aseptic cases.

MARY'S COMPANY

Mistress—You seem to have a good deal of company, Mary.

Maid—Yas'm. Dey's what I call my rainbeaux. Seven different colored gentlemen. Yas'm.—Princeton Tiger.

Original Articles

THE EARLY STAGES OF CHRONIC BRONCHITIS*

CHARLES N. MEADER, M. D.

DENVER, COLO.

The non-tuberculous infections of the lungs have been the subject of an increasing amount of study and discussion during the past decade. This has been most active and more fruitful of therapeutic results in the field of the surgical infections such as pulmonary abscess, gangrene and localized bronchiectasis. There exist, however, a probably larger group of pulmonary infections, not due to the tubercle bacillus, for which, either because of their widespread involvement or because of the relatively slight gravity of the lesions or of the ill health which they cause, lung surgery is either not likely to afford relief or its risks greatly overbalance the patient's disability. In these infections any reduction in incidence or in mortality must be accomplished either by medical treatment or by forestalling their development, or in less fortunate cases mitigating their severity, through early recognition and prompt and adequate treatment of those conditions which may foster their progress.

Aside from such specific infections as syphilis and actinomycosis, the most common and important of these chronic, non-surgical, non-tuberculous lung infections are chronic bronchitis, diffuse bronchiectasis and the closely related group of milder infections which have been described in several papers¹ during the past ten years under various titles of which the term "chronic non-tuberculous lung infection" has come into most common use. All these conditions have in common a course of great chronicity, interrupted by occasional acute exacerbations, and often leading by very gradual stages to greater and greater degrees of physical impairment; they are only slightly amenable to the usual means of medical treatment. Etiologically, each of these syndromes may be found associated with one or another, occasionally with several of the common pulmonary invaders, the pneumococcus, the influ-

enza bacillus, the micrococcus catarrhalis and various types of streptococci.

The most common of these infections is chronic bronchitis which is usually thought of only in its text-book guise of the chronic, long-established disease in a patient past middle life. This picture bears the same relation to its early stages as does the former text-book picture of cancer to the early stages and pre-cancerous states which we now seek to recognize and eliminate. The history of the chronic bronchitic, carefully taken, holds many fruitful suggestions bearing upon pathogenesis and prevention. It is rarely a short one. Through the mutations of "colds" usually with accompanying cough and often with frank acute bronchitis, of sore throats or tonsillitis, of persistent and troublesome catarrh, varied now and then by an attack of otitis media or a bronchopneumonia, the history of the respiratory infection takes its way. Not rarely attacks of bronchial asthma appear and disappear in the picture, or perhaps entirely dominate it. The times of onset of persistent cough, of persistent sputum or of dyspnea are hazy; occasionally they may be dated from a definite exacerbation. Gradually the symptoms suggestive of beginning cardiac or renal incompetency appear until finally the picture of the late stages is developed. Having regard for the long duration of the disease with its prolonged opportunity for mechanical strain upon the heart and for toxic damage to heart and kidneys from the usually present infection, it is not surprising that Lord² could find that, by the time of death, these organs presented lesions which might be considered primary, or that Hawes³ records a sharp difference of opinion as to whether or not chronic bronchitis exists as a primary disease. A painstaking history is as important in mapping the evolution of chronic bronchitis in the middle-aged and elderly as in detecting the early manifestation of tuberculosis, long antedating the final breakdown. Such a history, moreover, surprisingly often brings to light episodes which are indistinguishable from those characterizing the milder types of pulmonary infection to which reference has been made.

The evolution of the physical signs through the years is comparable to the evolution of the symptoms, and like them, often passes through stages indistinguishable from those characterizing the so-called "non-tuberculous pulmonary infec-

*Read before the Inter-State Assembly of the Tri-State District Medical Association, Des Moines, Iowa, Oct. 29, 30, 31 and Nov. 1, 1923.

tions." Cough may be present for long periods of time in the absence of detectable physical signs in the lungs. Sooner or later, following a fresh cold or an acute bronchitis there appear in one or the other lung, perhaps in both, and usually in the lower lobes a variety of abnormal signs. These may be very slight and sufficient to attract attention only on the most careful examination, or they may be very definite and unmistakable. In their slighter forms there may be found only an abnormal transmission of the whispered voice, much more rarely of the spoken voice or an abnormally harsh and prolonged expiratory note; occasionally there may be found an area of faint but unmistakable cog-wheel breathing. Changes in the percussion note only rarely accompany these slighter signs and when present are manifested only by a slight relative impairment rather than by actual dullness. Such signs may be limited to a very small area or they may occasionally be detected over a surprising portion of a lobe. In their more marked stages several or all of these signs may be combined in more marked degree and may be accompanied by the presence of few or many medium or fine moist rales, occasionally by subcrepitant rales. Their characteristic features lie in their insidious appearance, their persistence over long quiescent periods with little change and frequently the relatively slight degrees of physical impairment and meagre symptoms with which they are associated.

The literature of these earlier stages has been well reviewed by Field,⁴ who calls attention to these conditions as they occur in children. The range of severity of this syndrome appears to present all gradations from the mildest type in which the symptoms and signs persist for a few months and disappear without recurrence, to those in which the clinical picture merges with that of chronic bronchitis. The course may be benign with recovery in a few months or the condition may progress by gradual stages with frequent exacerbations to the fully developed picture of chronic bronchitis or of bronchiectasis. Its progress may be interrupted at any stage of advance and thereafter remain practically stationary for long periods of time, or become quiescent.

Pathologically the chain of events is difficult to follow for the very simple reason that patients do not die from the early lung lesions and the

changes found in those dying of advanced chronic bronchitis bear little relation to those presumably present in the early stages. Hamman and Wolman¹ have reported one post mortem in a patient dying of an intercurrent pneumonia in which they found a "localized bronchitis, with infiltration of the bronchial wall and foci of bronchopneumonia about the smaller bronchi." The x-ray throws some light upon the gross distribution of the lesions but in the cases reported as well as those coming under my own observation, no constant picture has been found.

Perhaps the most common change has been that of an accentuation of the normal lung markings, particularly of the smaller divisions of the bronchial tree, usually to a different degree on the two sides and sometimes confined to one side. This is sometimes accompanied by small areas of relative opacity in the surrounding parenchyma, distinctly denser in appearance than the fluffy areas of early tubercular infiltration. The distribution has usually been in the lower lobes, occasionally in both upper and lower lobes and rarely confined to one upper lobe. Physical signs pointing to hilus gland enlargement have been found more frequently in my experience than they have been confirmed by the x-ray, but such enlargement has not infrequently been shown in the films. It is difficult to decide whether the lesion primarily involves the bronchi or the lung parenchyma and whether it is properly to be regarded as a chronic bronchitis, a chronic peri-bronchitis or as a chronic pneumonitis. It is probable that all these changes are present in varying degree in different cases which are clinically much the same.

Whatever the pathology may prove to be it seems clear that it is difficult or impossible to draw a dividing line between these mild types of pulmonary infection and the early stages of chronic bronchitis. The inveteracy of the latter condition suggests that attention might profitably be turned to an attempt to recognize and treat these earlier stages in hope of warding off the latter.

There is a considerable body of evidence which suggests that the upper respiratory tract may play an etiological role in both the earlier and later stages of the disease. In considering the diseases of the lungs the fact is frequently overlooked that the nares and nasal sinuses and the pharyngeal tonsillar tissue constitute an integral

part of the respiratory tract, are frequently infected and are in direct connection with the lungs. As Rist⁵ aptly says it is comparable to ignoring the condition of the urethra and prostate in dealing with the diseases of the kidney, ureter and bladder. St. Clair Thompson⁶ in 1914 noted the influence of chronic sinusitis as a cause of persistent bronchorrhea. The rapid disappearance of chronic cough and of the signs and symptoms of hilus gland enlargement in children following the removal of diseased tonsils and adenoids has long been noted. Rist in 1916 emphasized the relation of sinus disease to chronic pulmonary infection and laid particular stress on their differentiation from pulmonary tuberculosis. In a later contribution⁷ he calls attention to the analogy between the frequent and well recognized association of acute coryza with acute bronchitis and the probable similar etiological association between chronic nasal and chronic pulmonary infections, and states that in his wide war experience over 50 per cent. of the proved non-tuberculous pulmonary infections fell in this category. In this country Webb and Gilbert⁸ have called attention to nasal infections as an etiological factor in chronic bronchiectasis and state that they have "found few cases of bronchiectasis or chronic bronchitis in which infection of the accessory sinuses was not demonstrated." Mills⁹ has also reported three cases of protracted chronic bronchitis in children in all of whom marked antral infection was found. Mackey¹⁰ has studied 216 cases of chronic bronchitis bacteriologically and reports that he was able to secure positive nasal cultures in 256: that in many cases the nasal and sputum cultures show identical organisms and that he is convinced that "there is bacteriological and clinical evidence that the bronchitis is not primary but is the result of the nasal infection." Mullin and Ryder¹¹ have studied the route by which infections may travel from the nares and pharynx to the lungs and believe that their results indicate that this may be by way of the lymphatics or by direct inhalation.

Since January 1, 1921, 26 patients whom it has been possible to study with some care, have come under observation presenting the clinical picture of chronic bronchitis or of the so-called "chronic non-tuberculous lung infections." Cases of surgical pulmonary infections, of bronchiectasis and of bronchial asthma as such are not in-

cluded in this series, and pulmonary tuberculosis could be definitely excluded in each case. The age of these patients ranged from 5 to 65 years with a remarkably even distribution by decades, viz.

0-10	10-20	20-30	30-40	40-50	50-60	60-70
4	3	4	4	3	6	2

Twelve were females, fourteen were males. The duration of the symptoms, which were those previously discussed as common in the chronic non-surgical, non-tuberculous lung infections, ranged from 4 months to 59 years. Three cases presented a duration under 1 year; eleven under 5 years and eight over 10 years. A diagnosis of pulmonary tuberculosis had been made at some time previously in 12, and many of these had been sent to Colorado for this reason. The onset of symptoms followed an acute illness, usually a "cold" or an acute bronchitis, in 11 patients; in 15 it was insidious and could not be definitely dated. Excluding a few in whom superficial blood streaking occasionally followed a severe coughing attack, only three gave a history of definite hemoptysis. Asthmatic attacks had been present at some time in 9 patients, in 4 of whom they were severe and persistent. In these 26 patients no foci of infection could be demonstrated anywhere in the body in 5; infected tonsils were present in a total of 13, alone in 6, associated with infection of the nasal sinuses or the teeth or both in 7. Infection of the nasal sinuses was demonstrated in 12 cases, alone in 7 and associated with tonsillar or tooth infection or both in 5. Apical infections of one or more teeth were found in a total of 9 cases, in only one, however, as the sole infection present. In 6 cases infections of other parts of the body were demonstrated, of the gall-bladder once, chronic appendicitis twice, of the prostate twice, and once an otitis media. Each of these was associated with infection of the tonsils, sinuses or teeth. Cultures from the infected foci showed a streptococcus 18 times, being the only organism present in 10 cases, associated with a pneumococcus in 9 cases, with the *M. catarrhalis* in one case. The latter organism was found in 9 cases, but never by itself. Other bacteria found but not regarded as of etiological significance were the staphylococcus aureus twice and the *M. tetragenous* once. Curiously enough the Pfeiffer bacillus was not reported in any of this series.

The treatment recommended comprised gen-

eral hygienic measures designed to enhance resistance, removal of foci of infection where demonstrated and possible, and the use of autogenous vaccines. Of the 26 patients there were 11 who either did not follow up treatment, who were seen only for diagnosis, who have not been under treatment for a sufficiently long time to permit of conclusions as to its efficacy or in whom no foci were demonstrated. Of the remaining fifteen all received appropriate hygienic treatment. In six of these all demonstrated foci were removed and no vaccine given with improvement in three, temporary improvement in one, no improvement in two. In six patients for various reasons demonstrated foci were not removed but autogenous vaccines containing the organisms present in those foci were administered over varying periods of time. Of these two showed improvement, three temporary improvement and one no improvement. In three patients in whom it was possible to remove demonstrated foci and to administer autogenous vaccine over a satisfactory length of time, all are recorded as improved. Improvement is here used to indicate freedom from symptoms and absence of signs of chest activity over a period of from 6 months to 3 years; temporary improvement to indicate definite amelioration of both symptoms and signs at least temporarily. The series is too small to permit of any useful correlation between the results obtained and the type of focus or of organism involved, or of the effect of duration of symptoms upon the probable result though the impression has been gained that, as might be expected, the patients with a shorter history afford a better prospect of relief. It also seems justifiable to conclude that foci of infection about the upper respiratory passages are very frequently associated with these chest infections; that such foci frequently stand in a causal relation to the latter and that their removal constitutes an essential step in the curative treatment of these conditions.

The non-surgical, non-tuberculous lung infections form a closely related and overlapping group of which chronic bronchitis and bronchiectasis represent the advanced stages; they are in the aggregate the cause of much ill-health and a factor in shortening life; when well established the advanced stages are unamenable to treatment. It is therefore particularly important that

the milder infections leading up to them be recognized as potential early stages to the end that the development of the more serious conditions may be forestalled by appropriate treatment of the antecedent lesions.

REFERENCES

1. Riesman: *Am. J. Med. Sc.*, 1913; 146:313. Larrabee: *B. M. & S. J.*, 1915; 172:257. Hamman and Wolman: *Tr. Nat. Assn. Study & Prev. T. B.*, 1916; 171. Rist: *Presse Med.*, July 24, 1916; pg. 321. *Rev. de la Tuber.*, 1923; 4:125. Miller: *Am. J. Med. Sc.*, 1917; 154:805. Garvin, Lyall & Mortise: *Am. Rev. Tuberc.*, 1917; 1:16. McCrudden, J. A. M. A., 1923; 80:609.
2. Lord: *J. A. M. A.*, 1916; 67:1981.
3. Hawes: *B. M. & S. J.*, 1923; 189:166.
4. Field: *Am. J. Med. Sc.*, 1920; 159:774.
5. Rist, loc. cit.
6. Thompson: *Practitioner*, 1914, June, pg. 745.
7. Rist: *Brit. Med. J.*, 1922; 11:733.
8. Webb and Gilbert; *J. A. M. A.*, 1921; 76:714.
9. Mills: *Med. J., Australia*, 1920; 1:487.
10. Mackey: *Brit. Med. Jour.*, 1922; 11:715.
11. Mullin and Ryder: *Am. Rev. Tuberc.*, 1920; 4:683.

TUMORS OF THE BREAST*

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In correlating my material for this paper I have collected from my card index all operations upon the breast except those for mastitis, either chronic or suppurative, during the period from January 11, 1905, to and including August 15, 1923, about 18 years, and find recorded in the index 539 cases. There were also in this series 22 carcinoma recurrence operations, which were in part mine and the remainder patients of others, one of these being operated upon four times in the scar and remote areas. Of the cases operated on, 315 were carcinoma—one of the entire number being a well advanced bilateral manifestation. There were 141 cystadenoma, of which about 117 were unilateral and 24 bilateral; sacoma, 2; tuberculosis, 2; lipoma, 4; aberrant breast, axillary, 3, one of which was carcinomatous; one sebaceous cyst of good size; one hemorrhagic cystadenoma; adeno-fibromata and fibro-cystadenoma, 27, and peri and intracanalicular fibroma, 38; of these latter in all 65 (including intracanalicular cystadenoma and intracanalicular papilloma, etc.).

It will be observed in the figures that about 60 per cent. of all the cases selected for operation were carcinoma. The cases operated on do not represent by far the patients seen with cystadenomatous, etc., degeneration of such slight degrees as to be considered non-operative. Neither does

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the large number of cystadenomatous breasts operated upon represent an evidence of operative furor in this class of pathology, but they were in all instances patients with this type of degeneration so far advanced as to demand operative relief. Numbers of them had had single cyst operations done on various occasions, one in particular asking for radical relief after five individual operations had been done by various operators, each operation being guaranteed as being the last of her trouble.

It has been my experience to see but two tuberculous tumors and two sarcomata in this period of time and one aberrant breast undergoing malignancy, which finally required a re-operation including the previously normal breast.

There are four instances in the carcinomata in which the second breast was invaded. One of these patients was inflicted with the second growth so remotely placed from the chain of lymphatics as to lead me to consider the tumor of primary origin, equal to that of the first breast. There was one bilateral carcinomatous involvement almost equal in both breasts. The case is so interesting as to deserve recording.

C. M., 47, single. Admitted to the hospital March 17, 1921; discharged March 28, 1921. Chief complaint, tumors of the breasts, duration 7 months. Family history—negative; past history—no operation, no previous illness. Personal history: Menopause 2 years ago, some slight spotting since. Present trouble, 7 months, no pain; no discharge from nipple; no loss in weight. Physical examination, negative. Surgical condition: definite assymetry of the two breasts. The left presents a flattened out and retracted nipple. The entire breast is hard, rubber-like in consistency. It moves as a whole on the chest. There is a large hard gland in the axilla, freely movable and smooth. Right breast: very hard, especially about the nipples; no retraction of the nipple, but the skin retracted in other areas and very adherent to the underlying tissues. Few very small hard nodes in the axilla. Operation: bilateral Stewart incision; result: primary union. Pathological report: Bilateral Schirrhous Carcinoma. Metastasis to lymph glands.

The peri-canalicular and intra-canalicular tumors were seen in the female, usually from 17 to 35. The cysto-papillomata, of which quite a few were recorded, were easily diagnosed at the first visit by the characteristic discharge from the nipple. In the non-recorded cases of mastitis, I am quite satisfied that three recently operated upon were fat necrosis cases of the type described by Burton Lee. In neither of these did I remove more than the areas involved.

As to the question of bilateral involvement being primary or of the second breast being invaded through lymphatic conveyance, one is unable to decide, but I am rather fixed in my opinion as to the two of the patients specially cited. In the instance of the patient with the immediate bilateral involvements I am inclined to believe after very careful examination and cross-examination that the breasts were simultaneously invaded by primary growths, or almost so; at least I feel that neither growth was a metastasis from the other.

In a patient with involvement of the remaining breast four years after the removal of the absent breast, the zone occupied, the discreet type of tumor, absence of any infiltrating process from the removed side and the absence of evidence by x-ray of any other metastases, lead me to a positive conclusion that involvement of the remaining breast was as much of a primary growth as the tumor in the removed breast. Unless we can definitely trace the metastatic chain across the breast, such instances as the one just cited should be classed as primary and not as metastatic.

In this series of patients but 3 were in the male—one a recurrence and two primaries. I have previously reported—see Dennis; System of Surgery—3 male patients with tumors of the breast.

Diagnosis of Malignancy: The most frequent reason, barring the presence of a tumor, that patients advance for suspecting malignancy is pain. It is most gratifying to be able to tell these worried callers that malignancies of the breast never begin with pain; that when pain is a symptom of cancer it requires no expert to diagnose the conditions and that the pain in these patients is due to compression involvement of the nerve filaments, infiltration, or a large tumor, or exposed nerve filaments in an ulcerating tumor. As a rule, malignancy of the breast is a single tumor, as compared with multiple tumors in cystadenoma, fibroma, etc., although one occasionally sees a malignancy present with a well defined multi-tumor not of the cystic variety. Recently I have removed a carcinomatous breast with two distinct nodules, four inches apart. The bilateral breast tumors are most frequently the cystadenomata and fibromata.

No better diagnostic objective evidence is known than the dimpling of the skin when the breast is grasped, as compared with the full

rounded convexity of the normal breast when compressed between the examining fingers. This dimpling sign of malignancy is obtained very early. By lifting the breast from below, or by compressing it between two or more fingers, the dimpling will readily follow, while in the non-involved breast, the convexity will remain or be exaggerated. This dimpling can also be seen without difficulty either by direct or by oblique inspection, and by feeling carefully over the dimple one obtains with the palpating hand the sense of hardening or tumor. In patients with more advanced or in patients with a more disseminated growth, the classical orange peel skin is seen. The elevation of the breast affected above the plane of the other, due to the lifting effect of the involved tissues, is seen in more advanced conditions. Strongly abducting the arm from the side, thereby making the skin and pectoralis major tense, will often bring the tumor into bold relief. Compression of the breast upon the chest wall either with the patient prone or in erect posture is an excellent means for detecting irregularities.

Retraction of the Nipple: If one were to rely upon this condition for a diagnosis, operations upon the breast would be more common than those for the appendix. In a very large proportion of patients there are single or bilateral retracted nipples in breasts that are absolutely normal otherwise. The retracted nipple of malignancy is due to the same cause as the dimpling of skin mentioned above. Eversion of this latter type of retraction is usually impossible, while in the normally retracted nipple eversion is quite possible in the great majority.

Axillary Adenopathy: To be found readily on palpation in the majority of patients, a gland must be exceptionally enlarged or the subject exceptionally thin.

Metastases are important in their bearing upon the question of operative justifiability. One cannot be too careful in the readily palpable tumor in the search for secondaries, those of the mediastinum or lungs characterized by a dry cough; in the bones by pain allied to nerve distribution pains, such as facial, intercostal, and in my experience frequently in the course of the sciatics, one or both.

One of my patients lived 11 years after a very

extensive dissection. The first evidence of metastasis was a hoarseness of voice, increasing slowly in intensity. It was not suspected that the hoarseness was in any way due to metastasis from the growth removed almost eleven years before until x-ray showed a tumor, the shadow of which was the size of a tangerine and situated above the arch of the aorta.

As far as my personal observations go, I cannot encourage the idea that metastases occur in the abdominal viscera in such frequency as we are led to believe by various observers. Therefore I am not inclined, in all patients, to practice Handly's resection of the upper segment of the rectus fascia, although I frequently do it.

In addition to the remote sites mentioned, the immediate sites call for consideration. Recurrence in the scar can be assigned to too small a skin flap removal, implantation by using of forceps in the flap edges that have not been properly cleaned after use in the ablated portion; the conveying of cells on the gloves, towels, sponges and other instruments, etc., that have been in contact with the removed area. The fact that cells may be lodged in the lymphatic channels at a remote area must account for those shot-like bodies, seen later at a distance from the scar of operation. Occasionally the shot-like masses in the area formerly occupied by the breast are cystic formations about a ligature, etc., and will disappear in time.

No breast should be removed when the supra-clavicular and cervical glands are so metastatically enlarged as to be readily palpated, but should be subjected to x-ray or radium for a time. This same statement holds in those patients with massive skin infiltration. I have recently had a marvelous disappearance of the skin infiltration in a woman of 38 after x-ray application by the more recent high voltage machine, although the tumor proper maintained its original size after six months' treatment. This patient was subsequently operated upon and died in six months even with added post-operative x-ray exposures. No breast should be operated upon with a promise of cure or a great extension of life in which the growth, ulcerated or not, is adherent to the chest wall. This type should also be subjected to ray or radium treatment, exceptions being in the instances when one can

remove the ulcerating tumor and cover either by plastic or by grafting processes.

I believe that tumors, when they are small should be operated upon and not treated by x-ray until after operation. A regrettable incident occurred in my practice in 1921. A patient with a small nodule in the upper inner quadrant of the right breast was advised by me to be operated upon. However, she had a relative, connected with a large hospital, which deals largely with malignancies and is well furnished with radium and x-ray appliances. By this over-enthusiastic relative the patient was given every confidence of cure, and I lost sight of her for six months. Upon her return to me at the end of this period, during which, she stated, she had been told that she was cured, the growth was still present, decidedly larger, and in addition there was distinctly evident adenopathy. Operation was again advised and consent at this time given. The removed growth was carefully examined by a pathologist, and no cell changes, due to x-ray "sickenings" or destruction was observed by him.

Recurrences may be exceptionally rapid, and again very slow. The explanation for either is not ordinarily obtained from the pathologist. At times, he will predict rapid recurrence, as was done in case of the patient with mediastinal growth eleven years after the operation. This patient was considered by two pathologists to be liable to a rapid—six to twelve month—recurrence, and without x-ray or radium treatment, lived eleven years before showing a suspicion of a secondary tumor. No autopsy was done in this case, so that even with the x-ray picture we are still in doubt as to the nature of the growth. Recently I have been notified of the death by senile dementia of a former patient of mine from whom I removed a breast sixteen years ago. The prognosis made by the pathologist was that of a rapid return. No evidence of a recurrence was observed, however, by her last attending physician. The youth of a patient, as in cancers at any site, is a strong factor in early or rapid recurrence or metastasis. The zone of the tumor, I am led to believe, may also be a factor in rapid metastasis. My most rapid recurrences under this heading are secondary to tumors in the axillary border of the breast, and also in the fat type of patient more frequently than in the lean.

The question of doubt in diagnosis may in most instances be determined by an immediate

pathological examination of a frozen section. I do not believe that a wide resection of a growth for immediate analysis endangers the patient at all. I cannot make the same statement for those patients in whom the specimen is removed days or weeks before the breast is removed. The clinical picture on gross section of these questionable growths is as a rule so clear that the experienced operator in the majority of instances does not require the microscope except as a confirmatory measure.

X-ray or radium as a preliminary to operation is in my opinion at the present time a "follow the leader game" that will require some years to satisfy us definitely as to its practicability. Use of these agents subsequent to operation is today largely enhanced by the advertisement the agents have received in the public press and by the friends of the patient. I am at present compelled to say that my cases longest free from metastasis were not treated with x-ray, as at that time x-ray and radium were not in their present-day positions.

To be effective in the prolonging of life or producing a cure, at present the most painstaking and extensive dissections are necessary. I am unfortunate in this discussion in being unable to bring before you statistically my recurrences as to site and time as but 43 replies were received to 150 questionnaires sent. Neither am I going to entertain the question of pathology. The most radical operation consists in the complete resection of the pectoral muscles, cleaning out the axilla of glands and fat, and extending the excision at times to the supraclavicular space. I do not demand removal of the pectoralis minor, except when unable to freely approach the vessels and nerves of the axillary and subclavicular zone. No functional disturbance follows the removal of both pectorals, therefore no hesitancy in removing them should exist.

The questions to be considered in a breast amputation must be: Is it justifiable from the standpoint of recurrence or metastasis? Is the mortality chance sufficiently low? Will the functions of the upper extremity after operation be preserved? The answers to two of the preceding questions are self-evident as a rule.

The functions of the upper extremity should never be involved. Free motion is always possible when orders for motion are properly carried out in practically every incision devised. The

greatest impairment of motion may arise in the Willy Meyer-Halsted incision of years ago, where the axillary edge of the pectoralis major is followed. This line of incision when healed has to be stretched when abduction is instituted and therefore in the nervous, hypersensitive, etc., limitation may be the result. If on the other hand the modified incision be used in which the incision slopes gently over the deltoid with convexity upwards, when the arm is abducted the points of origin and termination of the incision are brought together. The Stewart incision has been used in over 85 of my patients since 1916, with no great difficulty in exposure and no great obstruction to motion after the first few weeks, although many patients complain that the upward (abduction) movement drags on the chest wall scar in the early period following operation. The advantage of this incision is purely cosmetic and should be used in selected cases only.

The mortality in my carcinoma cases was two, and these deaths were partly attributable, in all probability, to a siege of streptococcus haemolyticus infections that we had in the hospital at that time, also in one of these patients due to a second operation being done within eight or nine days subsequent to the first. This patient refused anything but a removal of the suspicious growth and demanded waiting for eight or nine days after being told that the pathological report was carcinoma. On operating radically, the area from which the tumor had been removed was found filled with clot and the surrounding tissues ecchymotic. A complete removal was done, a rapid rise in temperature to 103 in two days, purulent metastases were observed all over the body, joints, cellular tissue, etc., with death resulting in ten days. Culture returns from the pus at the various sites was always that of streptococcus haemolyticus.

It is very pleasing to record relatively few chest complications in so large an area of exposure to trauma and infection in the respiratory zone.

Cystadenoma, single cyst, or the blue dome cyst of Bloodgood, cysto-fibroma, multiple cyst, intracanalicular, pericanalicular, adeno-fibroma, etc., are as a rule readily diagnosticated.

In the cyst-adenomata and multi-cystic breasts one feels a single or many small nodules. Very often careful massage from the periphery to cen-

ter will cause to be extruded from the nipple a fluid varying in consistency and in color from watery to pale straw, purulent or milky, bloody or chocolate brown appearance. In all but the bloody or chocolate colored fluids one can safely say that he is dealing with a benign condition. This type of growth is also prone to be bilateral. Recently I removed the remaining breasts of two women previously operated upon, one nine and the other six years, for the same disease. Among its many names, the term "old Maid's breast" is frequently applied. When the discharge is bloody or chocolate colored the diagnosis is usually that of inter-canalicular papilloma or a papillomatous cystadenoma. Again this bloody type of discharge may be due to bleeding from a non-papillomatous cyst with a malignant growth in the wall of the cyst. In the latter instance the precautions taken in a definite malignancy had better be observed. By careful palpation one is often able to outline a tumor in the area circumscribed by the outer margin of the areola and usually close to the nipple. On section of this tumor the eye frequently sees the cock's comb like papillomatous growth. These processes usually grow from the inner wall of one of the larger ducts. The question of these papillomata being malignant is disputed by many. I believe that a papilloma of the breast is as dangerous as a papilloma of the bladder or rectum, etc., and that, therefore, radical removal is in order,—at least the removal of the breast is demanded.

In an article published by me (the *American Journal of Surgery*, January, 1912), I called attention to this type of tumor recording a series of 17 patients with several illustrations taken from the removed breasts, presenting very typical papillomatous growths, and cited the work of A. A. Strasser, Arlington, N. J., who reports Bowlby (St. Bartholomew's Hospital Reports, 1888) with being the first to use the term duct papilloma, etc. I further stated that the question of malignancy in the early stages can be answered in the negative, but that they do become malignant, as evidence, Greenough and Simmons report 14 per cent in the pedicles and Bloodgood at that time claimed 50 per cent in the cases observed at the Johns Hopkins. My conclusion in this quoted article was that in small growths, excision of the growth suffices, while in large growths amputa-

tion of the breast is imperative. I shall modify this now by saying that I feel that all papillomatous breasts should be amputated.

Canalicular fibroma, intra and peri:—In one instance a very large growth involving the left breast, weighing five pounds, was removed, the clinical diagnosis of which was sarcoma, the pathological that of intracanalicular adenofibroma with no gland invasion. Complete removal was done. Six months later the patient coughed up a piece of tissue. Pathological diagnosis was sarcoma. At about the same time the entire cutaneous area was involved with growths from the size of a French pea to a hazelnut. These were subsequently pronounced sarcoma. The inference is, either the slides were wrongly read by the first pathologist, or that the original canalicular growth degenerated into a sarcoma at some point that escaped the pathologist's attention.

As previously stated, my list of operations for cystic breasts does not represent an operative furor,—these operations were done for demand reasons—persistent soiling of the linen by leakage; rapid growths; reoperative disappointment, and fear of more operations on the part of several who had from two to five removals done which were followed in a short time by palpable recurrences or rather new growths. These, in all probability were pre-existing small cysts that enlarged.

In those patients in whom we intend removing a single cyst, but whose breast tissue we find studded with numerous cysts in size just visible to that of a French pea or larger, I advocate amputation of the breasts without the extensive dissection done in malignancies.

These patients do not have the feeling of mutilation, as expressed by Bloodgood, and more recently by Peck quoting Bloodgood, but in the majority of instances are grateful for the work done. I feel that if they are to have the operation created in their minds many times by propagandists and annual cancer weeks, newspaper notoriety, etc., that a placid mentality, due to a complete operation, is far better than a diseased mentality with a less radical operation, not only for the tumor bearing individual, but also for each of her relatives and friends.

While cancer week notoriety and propagandism

is desirable, nevertheless I have found from my office experience that a great deal of unnecessary mental suffering is created during these periods which again is followed by the gratitude of the sufferer whose mind is relieved.

In the single growth—the blue dome cyst of Bloodgood, the discreet fibroma and the canalicular growth, the operation of removal resolves itself into a resection of the area well outside the tumor, with proper suture repair.

In conclusion I should like to emphasize the belief on my part:

1. That no tumor in the breast is a desirable tenant even if its innocence be proved without a question of doubt.

2. That a growth in the remaining breast is as likely to be of primary origin as was that in the breast first removed.

3. That at the present day we are unable to state positively what the influence of x-ray and radium is either as a pre-operative or post-operative aid. But in view of many apparent reductions in size, etc., previous to operation in cases considered non-operable, the use of x-ray and radium should be encouraged until proven a menace. In my opinion too few years have passed for positive results to be shown from these agents, even in view of some of the glowing reports at present regarding the non-recurrence. Post-operative treatment should not be neglected by pre-operative, until some definite proof of its help or inefficiency has been established.

4. That in the presence of late metastases the powerful currents of the present day should be given a thorough test—to prove or disprove the efficiency of this method of treatment.

6. That the most thorough and painstaking wide removal with remote glandular and fascial dissections will tend more and more to increase our percentage of cures and extension of life. That the radical operation is attended with so low a mortality as to promote a greater desire on the part of consulting physician to demand early operation.

5. That the use of radium and x-ray as cures in malignancies of the breast, so far are discouraging.

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SOME TECHNICAL POINTS IN THE
OPERATIVE TREATMENT OF GOITER

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Gentlemen: I will confine my remarks to some points in technique that seem worthy of consideration, and, with your permission, I will read my paper by abstract and ask you to take part in the discussion. I want you to interrupt me and make pertinent comments as we go along.

Of course, we are all vitally interested in the reduction of mortality. Undoubtedly the use of preliminary minor operative procedures to tide

We have been convinced for several years that fractional doses will sometimes stimulate the secretion from the gland and aggravate the condition. Sometimes it may check the normal secretion from the areas of normal tissue present in the gland but permit the toxic secretion from the changed or abnormal areas in the gland to be increased. But we are sure that the secretion from the gland can be checked for a period of two or three weeks by one massive dose of x-ray or radium. The patient usually shows improvement for a period of from two to four weeks. The second dose gives us about one-half the effect of the first one, and the third dose in our

I PROPOSE THE FOLLOWING OUTLINE FOR OUR DISCUSSION

Minor Procedures Preliminary to Radical Operation	{ X-ray or Radium	{ Indicated	
		{ Technique { Fractional doses { Massive Doses	
		{ Result	
		{ Injection { Boiling Water { Quinine-Urea Hydrochloride Solu ^t ,	
	{ Ligation { Superior Thyroid Arteries { Inferior Thyroid Arteries		
Radical Operation. or Thyroidectomy	{ Planes of Clearance { Superficial { Anterior { Posterior		
		{ Dislocation of the Gland { Small { Large	
	{ Ligation of the Upper Pole		
	{ Multiple Stage Operations	{ Two or more minor operations, in severe cases preferable to one major operation { Replace ligations { Local { Anaesthetic { Ether { Gas { Single Hospitalization	
		{ Amount to Remove { Severe Heart Cases with decompensation. { First Operation { Second Operation (Blair)	
	Complications	{ Post Operative Acute Hyperthyroidism { Diagnosis or { Prevention { Post Operative Acute Thyrotoxicosis { Treatment	
{ Infection { Local as one { General Etiological factor { Pyramidal Lobe { Presence { Early enlargement			
Miscellaneous	{ Respiratory Tolerance { Capacity { Patient's weight { Time { Rate		

the patient over a crisis and make a future radical operation safe, has had a great deal to do with the reduction of mortality.

X-Ray and Radium. I believe that, unquestionably, the secretion from the gland can be temporarily lessened by the use of x-ray or radium. By thus reducing the toxemia, even temporarily, the heart improves and the patient gets in better condition for operative procedures.

hands makes them worse about as often as it makes them better. Now who has something to say on the general proposition of the effect of Roentgen ray on the gland?

Injection As a Preoperative Procedure. Several years ago the injection of boiling water into the gland was extensively advocated. If enough water is gotten into the gland at boiling temperature, an inflammatory reaction occurs that checks the secretion for about two weeks. The

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difficulties attending this procedure are considerable. It is much easier and just as effective to inject the gland with quinineurea hydrochloride solution. Each one of these procedures has some advocates as a curative measure. Most of those who advocate the quinine-urea hydrochloride injection as a curative measure advocate the use of strong solutions, twenty to fifty per cent. But, as a simple dependable procedure for temporary but prompt relief of thyrotoxicosis, a one per cent or two per cent solution injected through a fine needle is very effective and brings about an inflammatory reaction that checks the secretion for two to three weeks. In many cases, x-ray treatment and injection nicely take the place of ligation.

Ligation. Ligation of the superior thyroid arteries has been the favorite procedure in many large clinics. Ligation of the inferior thyroid, although for some reason not a popular operation, is the favorite procedure of a few operators. By making an incision seven-eighths of an inch long through the skin and superficial fascia one inch above the clavicle, retraction of the sternocleido-mastoid muscle inward and upward brings the small incision right over the inferior thyroid between its origin at the thyroid axis and where it goes under the carotid. The operation at this place is easier than the one of ligation of the superior thyroid, and the scar is in line with the usual incision for radical operation, not high on the neck. We get as much benefit from the ligation of one inferior thyroid as we do from ligation of both superior thyroids.

Du-Quervain's operation of which you hear so much, was not devised for a preliminary and minor operative procedure to prepare these patients for operation and carry them through the crisis. The late Professor Theodore Kocher thought that at least one-third of the gland should always be left. He enucleated the tumors, and when others developed, operated again. It was not his practice to always remove all the diseased tissue in the gland. He removed only the tumor mass. That was really the most noticeable point in his technique as those of you who have seen him operate will remember. When Du-Quervain took his place, a large number of these cases were coming back for reoperation. With the idea that, by cutting off most of the blood supply he could leave large portions of the

gland and have fewer come-backs, he developed his inferior thyroid ligation as part of the technique of his radical operation. I do not think that it should be considered as a minor operation for immediate benefit and as a preliminary measure to assist in preparing the patient for radical operation.

I don't believe that there are as many ligations performed as there were several years ago. The x-ray and injection treatment takes care of the preliminary treatment of a good many that in the older days would have been ligated.

Another advantage of the sequence of x-ray, injection, and then operation is that you can do the whole thing with one hospitalization. These patients dislike very much to have an operation and go home and then have to come back. By this sequence, you can often carry them through and get them well and send them home with perhaps no lessening of the total amount of time in the hospital, but with only one hospitalization.

Radical Operation or Thyroidectomy

The position of the patient on the operating table is important. The shoulders should be forward, the head slightly back. If you expect to sever the muscles transversely the head can be held further back. But if you expect to remove the goiter through a small incision without cutting muscles, it is better to place no extra tension upon them by holding the head too far back.

The most satisfactory technic in our experience for operation with local anesthesia is the simplest one. The skin and subcutaneous tissues are first infiltrated, then a fine needle is passed down through skin and muscles to a point just above the upper pole of the side you expect to remove and all the tissues surrounding the upper pole infiltrated. If both upper poles are to be attacked the other side should be likewise injected.

The incision should be made low and symmetrical, but not over the ends of the clavicles. It should be made down to the superficial plane of cleavage at the platysma, perpendicular to the skin, leaving a layer of fat on the flap.

I want to call your attention to the planes of cleavage. First, the plane of cleavage under the skin flap is either just external or internal to the platysma. Second, the plane of cleavage

on the anterior two-thirds of the surface of the thyroid gland. It is just external to the capsule. At the external margins of the gland, the layers of the capsule are reflected outward to the cervical fascia. The other line of cleavage is along the posterior surface of each lobe. This reflexion of the capsule outward divides the surface of the gland into two surfaces that for convenience we designate anterior and posterior planes of cleavage. When the gland enlarges posterior to this attachment, the location of its junction with the gland is more anterior. When the anterior portion of the gland is enlarged, it is apparently in a more posterior position. Sometimes an enlargement occurs at the upper pole posterior to this transverse septum. I have been misled by this condition, and thought I had removed almost the entire lobe when a large colloid adenoma at the upper pole had developed posteriorly to this septum and was overlooked.

By following the anterior line of cleavage beyond this transverse partition in the neck, it is possible to extend the dissection out into interesting territory and encounter great difficulty in properly exposing the gland.

It is remarkable how strong this septum proves to be when an attempt is made to pull the gland forward with it intact, and how easily and bloodlessly it strips from the gland if an opening is made through it to the posterior plane of cleavage and the finger is passed posterior to the gland along the plane of cleavage on the posterior border of the gland and brought forward. Especially is this important at the upper pole.

Sometimes this septum is so thin and so situated that it is of no importance. Sometimes it is short and strong and, if the gland is fragile, great difficulty will be experienced in dislocating it until it has been released from this attachment. Separating this septum from the lobe will often afford better exposure than enlarging the skin incision and cutting the muscles transversely.

Raise the flap, following the superficial plane of cleavage, separate the fascia and muscles from the sternum to the cricoid and down to the isthmus of the gland. Free the gland to each side, following the anterior line of cleavage. Then by blunt dissection, make an opening through the septum into the posterior plane of cleavage, and strip forward until both planes of cleavage

are continuous. Tie all bleeding points. If you are going to cut the muscles, place your clamps and cut the muscles outward to the edge of the sterno-cleido-mastoid. If you are not going to cut the muscles, you must plan the next step carefully.

You have the two lobes and the isthmus. The mechanics of delivery of each lobe is not dissimilar to that of a posterior vertex presentation in obstetrics, the lower pole of each pole representing the vertex, the attachment at the isthmus the chin, the superior angle of the opening between the muscles, the pubic arch and the lower angle, the perineum. To deliver the lobe you must have flexion, extension, rotation and progress. Sometimes you can rotate the lobe, dislocate it, ligate the blood vessels at the superior pole, sever the attachments at the lower pole and the removal be attended with no particular difficulty. But if you anticipate any difficulty in such a maneuver, then develop the planes of cleavage and observe the mechanics of delivery.

Pick up the capsule at its attachment to the trachea above the isthmus and sever the superior attachments of the isthmus across the trachea; this will free the superior edge of the isthmus from the trachea. Tie every bleeding point. Remove all forceps. Then you will find the reflection of the capsule from the internal side of the superior poles to invite you to extend the dissection outward and upward along the anterior and inner side of the upper poles. There are usually some very vigorous blood-vessels in this area, including some branches of the superior thyroid. The blood supply is so free from this source that unless severed at this time the hemorrhage will be annoying from any cut portion of the lobe.

Now, having freed the superior edge of the isthmus and the anterior attachment of the lobes to the peri-laryngeal structures, stripped the septum off the external border, and controlled the hemorrhage, the isthmus may be moved upward and inward, without traction upon the trachea and larynx. If the gland is not large you can now retract the muscles upward and outward and ligate the superior pole. But if it is large, you may not be able to get to the superior pole until the tumor is dislocated and released by severing all its other attachments. By traction on the forceps attached to the gland and by

manipulation it can be flexed, rotated and extended so that slight upward and inward traction brings the lower pole into the small opening. By cutting between snaps you can sever the attachments at the lower pole, the remaining attachments of the isthmus along its lower border and the thyroidea intima.

If the attachments between the inner and anterior side of the upper lobe and the peri-laryngeal structures have been severed, the whole lobe can be drawn out until the last attachments, the branches of the superior thyroid that approach the gland at the upper pole, are visible and can be clamped and cut. The other branches of the superior that sometimes pass down along the larynx and cross over to the glands were cut when the gland was freed from the larynx.

Having one side delivered, the isthmus freed from the trachea, the same procedure can be carried out on the other side with much less difficulty. The vessels must all be securely tied, the lymphatics as well as the blood vessels, then the muscles and the fascia brought together, and the skin closed neatly.

The question arises: Why not cut the isthmus at the start? That is all right, but it is better on account of hemorrhage to sever all superior attachments of the isthmus and the inner attachments of the superior lobes before you cut the isthmus. Some operators cut the muscles across from the central opening to the edge of the sterno-cleido-mastoid between clamps. This procedure makes the operation easier, but in case infection develops and the muscles do not unite, the larynx and trachea are covered only by the skin flap. By not cutting the muscles, the shock is not so great, the muscles are uninjured, the convalescence is shortened, the discomfort is lessened, the control of the voice is not interfered with, and the mortality is lowered. Many patients, who are good surgical risks for the operation that is done without cutting the muscles, are poor surgical risks for operation with clamped and cut muscles. If the plans of cleavage are followed and the mechanics of delivery observed, it is never necessary to cut the muscles.

Multiple Stage Operation.

The multiple stage operation, to my mind, is another life saving procedure in very serious cases. It has been advocated by Dr. Frank Lahey of Boston for some time. You have just

heard Dr. Dyas commend it. The multiple stage operation takes care of a good many cases that otherwise would have to have ligation, and after a period of time at home, return for the radical operation.

The multiple stage operation works out better than one would think who has not tried it. If there is not too long an interval between the different operations, you can separate the old wound with practically no bleeding, and while it looks as though you would likely have infection following the later operation, yet the course of these cases following later operations compares favorably with that following a primary operation.

Any patient that will be benefited by ligation will be benefited more by taking out any appreciable portion of the gland. We think one reason that this is true is because whenever you traumatize the gland an inflammatory reaction occurs similar to that following injection of quinine-urea hydrochloride solution. So, by using x-ray, injection, and then the multiple stage operation, many critical patients can be carried along and their goiters completely removed with one hospitalization.

Safety consists in not doing too much, as Dr. Dyas mentioned a few minutes ago. The choice of anesthetic is of much importance with the multiple stage operation. You might use ether, of course, but patients usually dread and object to a second ether anesthesia. With local anesthesia, a patient is sometimes frightened or hurt, which, of course, makes it more difficult for the operator as well as the patient at subsequent operations. It appears to me that one of the most important considerations in the multiple stage operation is the anesthetic. After gas anesthesia, either nitrous oxide-oxygen or ethylene-oxygen, the patient rarely dreads a second anesthesia.

Severe heart cases with decompensation are especially well handled with the multiple stage operation. Many of these cases can be operated on by multiple stage operation that would take many months, at least, to get in condition for a complete radical operation. The improvement following successful removal is often so prompt and satisfactory that it is surprising.

Amount to Remove. Another important point to consider is how much to remove. You hear

that talked about all the time. It is a fact that a patient can live without any thyroid. We have seen hundreds in fairly good health without any thyroid at all. The majority of these have had their thyroids removed at multiple operations. And it is also a fact that if you remove all of an active gland at one time that you will have serious trouble.

I just want to call your attention to some of the statements of Blair of Kansas City. He has given it the stress and importance that it deserves. He says that in the second, third and fourth operations you can remove the entire gland with impunity, if a sufficient time has elapsed between the operations. Now, that's undoubtedly true. Patients that we have operated on get toxic two or four or five years after an incomplete thyroidectomy. Later it becomes necessary to remove the remaining portion of the thyroid, and they get along very nicely.

Now, the question is, will the physical system adapt itself to the absolute loss of the thyroid. We think it takes about two years. We have removed some thyroids completely all at one operation. But only with patients having a minus basal metabolism previous to the operation. In the cases in which the gland did not function. In these cases you will find absolutely no normal tissue in the gland after it is removed.

We have defined goiter as the diseased portion of the thyroid gland. And if it is diseased, there is no use to leave it. If it is diseased but still functioning, we don't believe you ought to take it all out at one time. Take out the major portion of it, and let the patient become used to its loss. Let the system adapt itself to the loss of most of the thyroid gland and then finish it up, because a thyroid operation doesn't amount to very much. A thyroid operation is no great tragedy if your patient is in good condition. Those who die are those who are in bad shape for operation.

Dr. Don W. Deal, Springfield: By giving thyroid extract following these cases, where too much has been removed, do you think it could be gradually reduced and be done away with in two years?

Dr. Sloan: I don't think you need worry about when to stop it. All the patients that we have tried to give thyroid to post-operative have stopped it themselves. Post-operative myxedema is rare. Some mild hypo-hypothyroidism is another

matter. It is not rare even among people with no goiter. Many patients are 10 or 12 minus, basal metabolism after thyroidectomy, but are apparently in satisfactory good health. But the question is, how much to remove.

Complications

We will now take up the complication of post operative acute thyrotoxicosis, usually called "acute hyperthyroidism." Following a goiter operation, the patient becomes slightly cyanotic, with very rapid pulse, usually delirious or unconscious, with mouth temperature usually slightly sub-normal, but with a rectal temperature of about 106°. And it comes on quickly. You think your patient is going to die, and your patient is going to die unless you eliminate the heat. There seems to be some disturbance of the heat center. This used to be a very frequent complication following goiter operation, and was usually fatal. There are few deaths from "Acute exophthalmus" now, because it is understood that if one gets busy soon enough and eliminates the heat from the body by ice water baths that they get well promptly. But you may not recognize the excessively high temperature of you depend upon mouth temperature. But if you take the rectal or vaginal temperature, you will discover the excessive high temperature. The skin sometimes feels cold. The circulation is poor.

If you wash out the stomach, give them whiskey through a stomach tube, stimulate the heart and eliminate the heat, the temperature will come down promptly and the circulation will improve, often in a half hour. The patients that are apparently dying will be out of danger in 60 minutes, and there is very rarely a relapse. The treatment of acute hyperthyroidism is standardized.

The cause of acute hyperthyroidism is a question that it is proper to take up here. In the old days we used to think that it was caused from absorption of crushed gland tissue that was left in the wound at a time of operation, but now it is conceded that acute hyperthyroidism is the result of some action of the gland tissue that is left in situ and had been disturbed by traumatism.

If you do a multiple stage operation and are going to only remove one lobe, don't touch the other lobe. Do not pass your finger around it,

slip the capsule off, lift it up, press it or squeeze it. If you do, you will invite an attack of "Acute hyperthyroidism." If you take out one lobe and don't disturb the portion of the thyroid that is left, if it has not been traumatized, acute hyperthyroidism is not likely to occur.

DISCUSSION.

Dr. Don W. Deal, Springfield: Up to the last year I have used the hot water injection entirely, never using the method of ligation. The technique can be simplified a great deal by having rubber tubing on the syringe. We have had no difficulty in doing this, by giving a light nitrous oxide anesthetic. This gave satisfactory results, but there are other easier and more successful methods at this time.

Dr. John E. Tuite, Rockford: I am sorry Dr. Edward Ochsner is not here to tell you of 300 cases of goiter that he cured by the old-fashioned injection of five per cent. carbolic. He used that with some inoperable exophthalmic goiter cases, with cystic adenomatous goiters and he used it with success. If he comes in, I hope you will bring this matter up again so that he can discuss it. He used about a 1 cc. of 5 per cent. solution. The basal metabolism dropped and the patients improved.

Dr. L. S. Goin, Peoria: Waters of Johns Hopkins proved conclusively that the x-ray has no effect whatever on normal thyroid tissue. I think that is proven beyond question by the extensive experiments which he conducted on the thyroid.

I don't agree with Dr. Sloan that the second and third doses of radiation make the goiter worse. It might, perhaps, be repeated in very large doses.

I have been impressed, in listening to such symposiums, with this feature: either the radiologist must be totally incompetent or else the surgeons have their cases in darned poor hands.

Dr. M. P. Parrish, Decatur: I have tried boiling water and carbolic acid. I have been all through this thing. About a year ago I went over to Crille's Clinic and was there three or four days. While I was there he operated on his 500th case of goiter and had not lost a case. He had not refused an operation. It seems to me that it is a remarkable showing for 500 cases of that kind and to operate on them without a single death.

I had Dr. Sloan over to see a case a few days since, a very aggravated case of exophthalmic goiter, with very little enlargement of the goiter with marked symptoms. I cut down and ligated the superior thyroid and injected this case with quinine-urea as the doctor suggested. I had never used that before. The case improved very nicely, except he had quite a little vomiting the first twenty-four hours following the operation and injection. The doctor says he doesn't believe that is entirely due to the quinine-urea, as we gave him a No. 1 H.M.C. tablet hypodermically before the operation and did it under local.

I think the ligation of the superior thyroid is of great benefit in these cases, and you get a lot of good

and can very often remove the gland in a very short time afterward without danger.

Dr. Mather Pfeiffenberger, Alton: In some cases ligation of the vessels is the only procedure you can use. It fell to my lot to have a case at one time which I had advised operative procedure which had been refused. She suddenly became maniacal and in this condition I again advised something being done, the reply being, "If you will do it right now I will give my consent." I took her at her word, using local anesthesia with ordinary sterile water, not having any local anesthetic at hand. Cut down and ligated both superior arteries (in the patient's own home). In a few days she was in perfect condition for any operation you might want to perform. Ligation in some instances is the only procedure you can resort to. One case I had, a neurologist whom I called in consultation advised me to remove one side of a large cystic goiter and after a reasonable time remove the rest of the tumor; this I did with great relief to the patient. In this case microscopic examination showed an entire absence of normal thyroid tissue and this patient is still living with no thyroid functioning; the cystic degeneration had been complete.

Dr. Philip H. Kreuscher, Chicago: I do not do a great many thyroids. Occasionally we do see some of these very bad cases. I did not discuss the first three or four points because I did not have anything especially to say about them. I do not know that I have anything especially to say in the management of these acute hyperthyroid cases, except to concur with what Dr. Sloan has said, whose work I have followed for the last three or four years pretty closely.

If I may digress here for a minute, there is one thing that I do wish to say, and that is this: No one has said anything about hypo-thyroidism. We find that these cases of hypo-thyroidism may go on unrecognized unless we stumble on to them accidentally.

I have under my care a small boy; in fact, my small son, who when he was eight years of age showed a decided tendency not to care to study his arithmetic, simply because arithmetic was hard for him. He was pretty good in his other studies and got along fine, but arithmetic and one or two other studies were an abomination to him, and he didn't care for them.

Dr. Manilaw, who has charge of the medical work at the University of Chicago and also the elementary school where my boy was attending, suggested that we do a basal metabolism test on the chap. It was done, not once but three or four times, and the average showed a hypo-thyroidism, 39 points below normal, below the case line. This was along in March or February. He was at the foot of his class practically in arithmetic. We gave him 1/10 gr. dose of thyroid extract by mouth three times a day for a period of three weeks, and then later every other week until the end of the course. In June he was second to the top in his class in arithmetic. These are the cases whom the old-styled teachers used to whip or punish because they were not up in certain studies.

I believe now, if you can rule out other sources of infection, other reasons for this apparent indolence.

that we are going to find some very, very interesting things among our school children. I believe, if we can rule out other sources of infection, that if he then check up the basal metabolism rate, not once, not twice, but three or four times, and then getting a good average, we will find out some things we haven't known up until now. This boy is now eleven, or nearly twelve, and ever so often I find that the basal rate has gone just a little bit low. Then we treat him with a little thyroid. Dr. Sloan suggested last evening that probably for the next three or four years, until he is fifteen or sixteen, we might have to give him a little thyroid extract from time to time.

Another case of hyperthyroidism which I operated on I didn't recognize as hyperthyroidism. A young man, a foreigner, who didn't speak very good English, came to the hospital with an abscess in his axilla. He presented a number of very prominent nervous symptoms. Although even then I didn't think very much about it, because he was a foreigner and, being in the hospital for the first time, I thought probably that his nervousness was due to his fright, that some of the patients have when you first put them in the hospital. He has a temperature of 100.5 in the afternoon. We watched him for three or four days, applied hot applications to the axilla, and lo and behold! he improved. On the fourth or fifth day he began to get worse. The abscess became somewhat larger, the symptoms became somewhat more aggravated. I told him this abscess would have to be opened. His nervous symptoms were getting just a little bit worse, but not sufficiently so to really make us suspicious. I told him that this mass, which you could feel in the axilla and watch was definitely circumscribed and could be moved about, probably would have to be removed, and I went in with that in mind. When I got down and exposed this mass, it had that characteristic appearance of a thyroid adenoma. We then surrounded this very carefully, and found that leading into it was a definite large artery half the size of a lead pencil, and that out of it and alongside of the artery came a very defined vein. We clamped this off and ligated and closed the axillary space. On opening this thyroid gland or this mass, we found a staphylococcal abscess in the center about the size of an English walnut. The laboratory showed, of course, that this was a thyroid gland which had been misplaced in the axilla. Into it was a definite artery and from it a definite vein.

The next day we did a basal metabolism test, and the second day another and the third day another. He showed 112 plus; a week later he showed a 68 plus; three weeks later he showed a 40 plus; six weeks later, a 12 pulse. And now for a year and a half he has been absolutely normal. The toxic symptoms have all disappeared. He has no more nervousness. He is perfectly well. An examination of his neck showed after operation an entire absence, as far as palpation goes, of any thyroid gland at all on the left side, and a normal sized gland on the right side.

Dr. E. P. Sloan (closing the discussion): That reminds me of the fact that I removed a tumor from a man's breast several years ago, a very peculiar looking

tumor. I sent it up to a Chicago laboratory without comment to ascertain whether or not it was a carcinoma. The report came back that it was a thyroid adenoma. We threw the report in the waste basket, because we thought the darned fool pathologist didn't know what he was talking about.

Infection.—Someone asks what is the cause of goiter. The popular opinion seems to be that it is due to lack of iodine. We are seeing many cases every year that, from the history, we feel sure are due to infection, either from local infection, such as tonsils or teeth, or from general infection following the flu, measles, scarlet fever or the mumps. In fact this is the only cause that we are ever absolutely sure of. Nearly all, if not all, of the cases that we have seen that have followed infection of the tonsils or teeth have had a large pyramidal lobe. The majority of them have given a history that the pyramidal lobe and the isthmus were the first to enlarge. In fact, when we get a history of the pyramidal lobe enlarging first, we always suspect strumitis or infection of the gland. This might not occur if enough iodine were present in the gland. I feel that it is up to the internist and pathologist to work out the etiology.

Respiratory Tolerance.—One other point that I want to suggest to you in just a sentence is respiratory tolerance. Now, basal metabolism is a relative proposition, and there are some other factors that have to do with the effect that a high basal metabolism is going to have upon the system, one of which, of course, is respiratory tolerance or sufficiency. Now for about a year, in our serious cases especially, we have been trying to estimate the respiratory tolerance, taking the respiratory rate, respiratory capacity, and then the length of time the patients can hold their breath. By considering these factors and the weight of the patient, we have been trying to work out an answer to the problem. Now, I will just suggest that it is up to the internists to see if there is anything to the estimation of respiratory tolerance. If these factors are worked out, maybe we can find something that will be of value, the tests of which can be made in any home.

Sometimes your basal metabolism does not check up with these tests. I will have to confess that in our laboratory, when there has been any great discrepancy between basal metabolism and respiratory tolerance that repeated examinations have brought the basal metabolism report nearer to the finding of the respiratory tolerance test.

Has anyone else something to take up? If you have not, I will show a movie film of three goiter operations.

TREATMENT OF GOITER.

CHARLES A. ELLIOTT, M. D.,
CHICAGO

Of the many agents that have been advocated in the treatment of goiter but few have withstood the test of time and experimentation. Probably some of the remedies now considered

effective are due to be discarded. The manner of use of the more valuable agents has become fairly well standardized; their limitations are generally recognized. The following factors have, in our experience, proved of definite therapeutic value:

1. Early diagnosis and clinical classification.
2. Rest in bed.
3. Dietetic management.
4. Administration of iodine.
5. Elimination of infection.
6. Irradiation, x-ray and radium.
7. Surgical interference.

1. EARLY DIAGNOSIS AND CLASSIFICATION.

Not only early recognition of thyroid enlargement and intoxication but also accurate clinical differentiation of the type of goiter under consideration is necessary for the reason that the various types require different treatment.

The following classification based on the degree of hyperthyroidism as determined clinically and by basal metabolic rate has proved convenient:

(a) *Goiters which are non-toxic.* Surgery may be indicated on account of unsightly appearance or because of pressure symptoms. Removal of a large part of the thyroid may ordinarily be performed without serious risk.

(b) *Thyroid enlargements which are but mildly toxic.* This group includes endemic goiter, certain stages of colloid goiter, and the struma of puberty, pregnancy, and the menopause. They are usually benefited by the administration of iodine, the removal of foci of infection or by measures directed toward the improvement of the general health. The intoxication in this group may be transitory, or self-limited; it is usually of such mild degree as to require little attention.

(c) *Secondarily toxic goiters,* including the more toxic colloid and the toxic adenomatous goiters of long standing. Many are masked by chronic myocardial disease, the thyroid element being overlooked. The procedure should depend upon the severity and duration of the toxic manifestations. The administration of iodine or the removal of foci of infection ordinarily have but little influence. Operative interference is frequently indicated.

(d) *Exophthalmic* (hyperplastic or primary)

goiter is apparently a clinical entity. The course is progressive with periods of excessive, critical intoxication followed by remissions. It should always be subjected to an early thyroidectomy. This stand is taken for two reasons: First, because of the danger inherent in the repeated and often severe exacerbations accompanied with permanent myocardial and other parenchymatous degeneration, and, second, because early subtotal thyroidectomy has proved effective in stopping the progress of the disease. The benefit derived from thyroidectomy is inversely proportional to the amount of permanent tissue damage in distant organs. Where thyroidectomy has been performed early, little or no residual structural change can be detected months or years after operation. Early diagnosis is not always easy since the thyroid gland may not be manifestly enlarged. A bruit over the gland is suggestive of exophthalmic goiter; it rarely occurs in other forms. Exophthalmos is often absent or only questionable at the onset. Nervousness, tremor, flushing, sweating, tachycardia, palpitation, loss of strength and weight are important early symptoms. The time of onset is usually fairly definite, frequently following general infections such as influenza, grip, bronchopneumonia or tonsillitis. The patient usually presents himself within a few weeks or months after the appearance of symptoms. The usual absence of a history of previous goiter is in marked contrast to the history obtained from patients with secondary hyperthyroidism.

2. **REST IN BED.** Rest in bed was formerly considered the most important agent in the treatment of hyperthyroidism. The results of prolonged rest, however, never seemed quite satisfactory, since the disease appeared to run much the same course with or without such management. It seems likely that a patient at rest is able to withstand the daily toxic dose of thyroxin product to which he is subjected better than one who is permitted to be up and about. There are mild cases of hyperthyroidism in which a period of bed rest is followed by apparent recovery. Although metabolism is, of course, slowed by rest both in normal and in hyperthyroid individuals, such decrease can scarcely be considered as evidence in support of the conclusion that nothing more is required in the way of treatment of hyperthyroidism. In our experience, the maximum benefit is obtained within five to seven days.

To prolong rest beyond that period seems only to permit further intoxication and more extensive coincident tissue damage.

3. **DIETETIC MANAGEMENT.** The diet of a hyperthyroid patient requires special consideration only in respect to the conservation of the body tissues. Naturally, more energy in the form of food is required by toxic than by normal individuals. The variations in caloric requirement are readily determined by metabolic studies. As many as 75 to 100 calories per kilogram of body weight may be needed. At least two grams of protein per kilo of body weight should be allowed; the greater part of the diet should consist of carbohydrate and fat in the ketogenic-antiketogenic ratio of 1:1½. Water sufficient to meet the needs of metabolism should be administered at stated intervals; an average of two quarts is usually adequate. Maintenance of the body weight is desirable; it furnishes a rough index of the efficacy of dietary control.

4. **ADMINISTRATION OF IODINE.** Iodine has been used for many years in the treatment of thyroid disease. As a result of the work of Marine it has come to be generally employed as a specific remedy in the prevention of endemic goiter. Marked benefit is obtained in simple goiters of short duration, and satisfactory but less striking results in long standing cases and in those associated with mild intoxication. The above conditions may be considered, at least in part, as manifestations of iodine deficiency. In the more toxic forms of goiter iodine has been used with varying results, but until recently has been considered to be often dangerous. Its value in the treatment of exophthalmic goiter was not recognized until 1922. This may have been due to the unfavorable results occasionally obtained in some forms of thyroid intoxication and particularly because of a lack of differentiation between exophthalmic and secondarily toxic goiter. In the group of secondary toxic goiter, as toxic adenoma, we have observed little benefit; nevertheless, despite occasional evidence suggestive of ill effect, the use of iodine seems safe and desirable as a measure preparatory for thyroidectomy. The good results obtained in cases of exophthalmic goiter suggest that the hyperplastic thyroid gland is to some extent deficient in iodine content.

During the past year we have administered

iodine during the rest period preceding operation to all cases of exophthalmic goiter. Although the number of patients so treated is too small to warrant a final opinion, the results obtained have been striking; they correspond with the observations of others who have advocated the use of iodine. The administration of ten minims of Lugol's solution in half a glass of water two or three times daily was in all cases followed by a marked reduction of the toxic manifestations and of the metabolic rate (in some cases to normal). Nervousness, tremor, and tachycardia decreased; the thyroid became smaller and softer and in some cases the bruit disappeared; the patients became apparently detoxicated. Thyroidectomy was subsequently performed without reaction and apparently with as little risk as in non-toxic cases. The patients prepared for operation as described presented a clinical picture contrasting markedly with that of patients recommended for operation in former years without preliminary iodine treatment. The effect of iodine, however, is not permanent. That the detoxication is only temporary is illustrated by the course of one of our patients who seemed to have recovered under the influence of iodine and who was, therefore, permitted to go home with instructions to continue taking Lugol's solution. At the end of a month, following a "cold" toxic symptoms recurred and he returned to the hospital for operation.

Following thyroidectomy we have continued the administration of small amounts of iodine in the hope of reducing the tendency of the remaining cells to excessive activity. This has been done on the theory that the activity of the thyroid is inversely proportional to the iodine content, and that by feeding iodine the iodine content may be increased.

5. **ELIMINATION OF INFECTION.** The relation between infection and exophthalmic goiter seems definite. Following the various influenza epidemics there was marked increase in the number of cases. Exophthalmic goiter has developed under our observation after such infections as bronchopneumonia and tonsillitis. It also seems likely, although not proved, that focal infections, particularly about the head, play a part in the development of hyperthyroidism. In our opinion, such foci of infection should be removed as a general health measure with the hope, in

addition, that a reduction of thyroid activity may follow.

6. IRRADIATION. Our experience with radium and roentgen ray treatment has been limited chiefly to severe cases of hyperthyroidism which were considered poor operative risks and to patients who refused operation. Irradiation unquestionably reduces thyroid activity by direct action on the parenchyma of the gland and on blood vessel epithelium. It has not seemed of decided benefit in the type of case in which it has been employed.

7. SURGICAL INTERFERENCE. Subtotal thyroidectomy has proved the best means of control in the cases of hyperthyroidism under our observation. Surgeons have, in recent years, ventured to remove more and more of the gland substance, apparently with beneficial effect. Cases of exophthalmic goiter under iodine control, operated upon early offer little risk; the symptoms disappear and the metabolic rate falls rapidly within normal limits. Operated upon late, the benefit derived is inversely proportional to the amount of permanent tissue damage that has occurred.

Lobectomy, formerly performed extensively, has now been practically discarded. It seems evident that the thyroid tissue remaining after operation was responsible for the frequent unsatisfactory results. With more extensive resection there have been fewer recurrences.

Ligation seems at the present time to have a definite indication as an independent therapeutic measure and as a procedure preliminary to thyroidectomy. It is probable, however, that control of hyperthyroidism by means of the administration of iodine, will, in most cases, render ligation unnecessary.

FACTORS OF SAFETY IN THE TREATMENT OF GOITER.

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The classic picture of advanced hyperthyroidism offers no difficulties from the standpoint of diagnosis. It is unique in its manifestations. The problem of its successful management, however, entails the greatest skill and judgment—painstaking study of the individual, repeated laboratory examinations and a plan of action decided upon only after a careful review of all

of the facts. As in most other conditions, the physical examination reveals more than the laboratory tests and is the basis upon which the treatment must be planned.

The ability of the heart to withstand the shock of operation plus the added intoxication caused by the sudden absorption of large quantities of thyroid secretion, as a result of operative trauma, is the all important consideration from the standpoint of treatment. For this reason there must always be a course of medical treatment in cases of hyperthyroidism before advising more radical curative measures. The acutely dilated heart with its accompanying dyspnea responds to absolute rest, the precordial ice-bag and digitalization except in certain cases of toxic adenomata.

Cirle's ingenious theory of the kinetic system and its sensitive response to any type of stimulation explains the sudden exacerbation of toxic symptoms under the influence of trauma, fatigue, fear, anger or grief. As a corollary it may be said that these factors plus foci of infection are the determining elements in the establishment of the syndrome known as toxic goiter.

Reasoning by analogy we may conclude that over-stimulation of the thyroid gland causes an hypertrophy and hyperplasia of its structure and a corresponding increase in the elaboration of its secretion, just as an increase of work by a muscle causes an hypertrophy of the muscle bundles. This continued over-stimulation of the gland entailing as it does a coincident speeding up of the parathyroids, adrenals, liver and nervous system finally establishes that group of symptoms which has come to be recognized as hyperthyroidism.

The onset of this condition is rarely acute, and in many instances the disease is firmly established before the patient submits himself for diagnosis and treatment. The function of the thyroid is perhaps best appreciated in its pathologic state, myxedema representing an absence or diminution of thyroid secretion and hyperthyroidism, as the term implies, denoting an increased elaboration and absorption of its product. In myxedema the mental and bodily processes are dulled and every response to stimuli slowed. In hyperthyroidism there is an increased sensitization of the brain and peripheral nerves. The effect of every stimulus is intensified many fold. Existence is rendered acute and the whole

organism is speeded up. The peculiar function of the thyroid appears to be the splitting up of the iodine containing molecules of any compound of iodine which enters the body (Marine) as ferrous iodide, sodium iodide, potassium iodide and the conversion of the iodide into the specific thyroid product—thyro-iodine or thyroxine (Kendall).

Under varying conditions there is a change in the amount of the elaboration and absorption of thyroid substance which may fall under normal or physiologic limits. Thus during menstruation there may be observed an increase in the size of the thyroid gland, increased nervous irritability, tachycardia, tremor and increased basal metabolism. These manifestations appear with the monthly flow and increase in intensity with the local symptoms and finally recede with the decline of the period.

The goiter of adolescence presents a like picture and often is scarcely more than physiologic. Unfortunately these physiologic variations do not seem to be recognized by every medical man, the tendency being to advise operative removal upon the appearance of an enlarged gland.

In toxic adenomata, however, all the symptoms of hyperthyroidism, e. g., increased basal metabolism, tachycardia, nervousness, slight fever and emaciation may be present. Increased appetite may occur. In toxemias from the absorption of the products of degeneration or infection of other organs, increased metabolism and increased appetite do not occur. It is, therefore, probable that hyperthyroidism does not occur as a result of degeneration of the thyroid, but from an increased elaboration and absorption of thyro-iodine. Therefore presence or absence of iodine is the all important factor in the study of goiter. Marine states that "fetal adenomata and simple goiters result from a deficiency of iodine." Crile believes "that exophthalmic goiters are caused by excessive secretion of thyro-iodine." May it not be that the hypertrophy or hyperplasia of the gland is caused by over-stimulation due to sustained psychic or physical stress or to the absorption of the products of infection? Whatever may be the cause, the result is the hyper-sensitization of the whole organism and increased oxidation. This may be translated into terms of basal metabolism and a positive reaction to the Goetsch test.

The Goetsch test consists of the subcutaneous injection of adrenalin chloride, 6mm. of the

1:1000 solution followed by five-minute observations on the following: 1. Blood pressure. 2. Pulse. 3. Respiration. 4. Nervousness. 5. Tremor. 6. Pupils and vasomotor reaction of the skin. (This injection is not to be used in exophthalmic cases and in those with blood pressure over 160).

Eighty-nine per cent of cases with clinical signs of hyperthyroidism give a positive reaction with adrenalin.

Eighty-five per cent of cases show similar results in the Goetsch test and basal metabolism estimation. The result of the reaction to adrenalin cannot be used as a basis for estimating operability or postoperative reaction of a patient.

The Goetsch test then represents a most valuable adjunct to other methods in estimating the degree of absorption from the thyroid gland. Since the results from this test and basal metabolism readings in a given case run almost parallel it is a useful substitute when the rather elaborate apparatus for metabolism estimation is not available. In many hospitals and clinics the metabolism observations are made by laboratory workers and technicians whose whole interest is detached. The calculations are made without an intimate acquaintance with the patient and without the benefit of a detailed clinical history. Therefore, those variable factors which may constitute a large source of error may not be given proper weight in the final laboratory report. For that reason the following considerations are reviewed in the hope that they may lead to a better interpretation of basal metabolism readings in the light of the clinical history and physical examination.

BASAL METABOLISM.

Amongst the *normal factors* influencing basal metabolism rate are the following.

1. Age: The readings are lowest in the newborn babe, the maximum occurring at the fifth year after which the curve gradually declines.

2. Digestion: The metabolic rate increases 15 per cent during digestion and it is most marked after ingestion of cold foods and diets rich in protein and alcohol.

3. Exercise: Any movement of the voluntary musculature of the body causes an increase in metabolism. If exercise be violent enough the metabolic rate may be increased to the limit of which the individual is capable.

4. Excitement, emotion, anger, fear and

trauma increase the basal metabolic rate in almost direct proportion to the intensity and duration of their application.

5. Menstruation and pregnancy may show an increased metabolic rate.

Abnormal conditions influencing metabolism are:

1. Fever, which is an indication of increased tissue oxidation and is almost uniformly accompanied by an increase of metabolic exchange. However, even during the highest temperature readings, the metabolic rate never reaches the heights observed in extreme hyperthyroidism. As might be expected, the metabolic rate is found to be highest during the chill associated with the onset of certain fevers, notably pneumonia and malaria.

2. In diabetes mellitus the metabolic rate is most exaggerated during the stages of hyperglycemia and acidosis. During the sugar-free periods the rate may be normal or subnormal.

3. In cardiac dyspnea and asthma associated with decompensation and myocardial degeneration it may reach 50 per cent above normal, hence this must be borne in mind in estimating metabolism rate in cases of hyperthyroidism with cardiac decompensation.

4. In pituitary disorders, as acromegaly and Froehlich's syndrome, the basal metabolism may be increased 50 per cent. It is possible that in these pituitary disorders there may be a concurrent involvement of the thyroid gland.

BASAL METABOLISM IN HYPERTHYROIDISM.

The first studies in basal metabolism in hyperthyroidism were made by Frederick Müller in 1893. He found that patients were eating more food than was necessary for their caloric needs and excreting more nitrogen in the urine than they were taking in their food. These patients were in a state of starvation although eating and utilizing more food than a normal individual.

Magnus and Levy¹ demonstrated that the metabolism of patients with hyperthyroidism is increased, while the basal metabolism of patients with myxedema is decreased. DuBois demonstrated that in hyperthyroidism the basal metabolism reached a higher degree than in any other condition and that it is the most constant manifestation of the disease. Hence the importance of a series of accurate metabolism estimations

from the standpoint of diagnosis, operability and prognosis.

Justin M. Waugh states that in 185 cases examined before operation there was found unilateral disturbance of laryngeal function in 27 or 14.6 per cent. He further calls attention to the following:

1. Any laryngeal impairment which is due to a pathologic condition of the thyroid is unilateral.

2. The size of the goiter bears no relation to the functional impairment of the laryngeal nerve, e. g., the impaired cord may not be upon the same side as the largest mass.

3. The degree of laryngeal involvement from non-operative causes varies from paresis to paralysis.

4. Radiologic study in all cases in which clinical symptoms and history indicate intrathoracic goiter is indicated, differentiating thymus, Hodgkin's disease, aneurysm of the aorta, malignancy, abscess of the hilus of the lung, sarcoma of the lung, carcinoma and diverticulum of the esophagus, and tumor of the chest wall.

MORTALITY OF GOITER.

Hyman and Kessel² conclude from a study of fifty cases of fully developed exophthalmic goiter that in the vast majority of cases there is a marked and progressively increasing tendency toward partial recovery. This recovery is not complete or a cure but is marked by persistence of residual symptoms. The results of skilled neglect compare favorably with the results of specific therapeutic measures other than operative treatment.

THE MANY STAGE OPERATION FOR GOITER.

Martin B. Tinker³ thinks that the operation divided into many stages not only makes it possible to save the lives of many desperately ill patients but under this plan it is easier to enforce the rest and care indispensable to ultimate complete recovery, especially in those cases with dilated hearts and myocardial degeneration. The disadvantages of greater scarring, prolonged hospitalization and increased expense seem trivial when safety and permanent recovery are considered.

The advantages of preliminary ligation will be more fully realized when the pole of the gland is well exposed so as to make more certain the securing of all the vessels, main and collateral.

The many stage excision with wound packing is best where grave symptoms occur during operation. A proper evaluation of the symptoms and signs in relation to treatment, e. g., how much to do and when to do it, still makes the difference between life and death, health or invalidism. In this as in many other fields of surgery, long study and preliminary treatment of doubtful cases, followed by operation in many stages is essential.

There are two types of operation. *First*, raising the flap for excision and interrupting the operation and packing the wound at any time the patient's condition suggests that it is unsafe to continue.

Second, the ligation of one or more important vessels to be followed by further ligation or excision as the patient's condition warrants.

Certain of these patients will die whatever is done or if nothing is done.

Porter reports favorable results in inoperable cases following the injection of boiling water. This method, however, does not produce as definite results as polar ligation.

Radium is useful during the period of preparation and in those cases refusing operation. It is too early to make positive statements as to its permanent value because of the well-known predisposition of hyperthyroidism to exacerbations, under any treatment or no treatment at all.

Definite and serious myocardial change is the direct result of thyroid toxemia. The nervous system is likewise frequently involved to a serious extent. Radical operation upon these patients may result in a permanently damaged myocardium.

The x-ray may aggravate symptoms.

Radical operation during the stage of severe toxemia puts a strain upon the heart from which it may never fully recover. It is better to make the mistake of doing too little rather than too much at one sitting.

"Any persistent discrepancy between the apex beat and the radial pulse in a patient who has had fairly prolonged rest with digitalization and other preliminary treatment is considered sufficient evidence of myocardial insufficiency to make even the least of the many-stage operations too hazardous in practically all cases."—Tinker.

Mayo and Pemberton⁴ state that: 1. The operative risk of goiter without hyperthyroidism is confined to the operative and postoperative

accidents; e. g., hemorrhage, shock or infection in goiter with hyperthyroidism, the greater danger lies in the disease itself, e. g., those conditions produced by absorption of abnormal amount of thyroid substance. 2. Reduction of mortality to 1 per cent is attributable to the

- (a) Hyperthyroidism patient being subjected to operation early, before visceral changes have become permanently established.
- (b) Appropriate treatment based upon basal metabolism and the condition of myocardium and nervous system. Adequate preliminary treatment reduces postoperative acute hyperthyroidism.
- (c) Recognition of the fact that injury to the recurrent laryngeal nerve not only produces aphonia but often fatal pulmonary lesions, e. g., edema of lungs and goiter and pneumonia.
- (d) Preliminary measures are ineffectual in adenomatous goiter with hyperthyroidism.

BLOOD SUPPLY OF THYROID GLAND

In the consideration of polar ligation it should be borne in mind that the thyroid gland has a rich arterial and venous supply and that there is an extensive anastomosis between the vessels of the same and opposite lobes. After ligation of all four thyroid vessels the circulation may be re-established through extraglandular anastomosis, thus accounting for the persistence of symptoms in some cases following ligations. The secretory activity of the thyroid gland is dependent upon its nerve and blood supply.

Hence ligation should include the tissue about the veins and arteries so the nervous impulses to the gland may be interrupted.

CONCLUSIONS.

1. The basal metabolism reading is in most cases the guide to treatment.
2. Cases with high metabolic index should be subjected to rest, digitalization and ice to the precordium. Patients suffering from toxic adenomata do not improve greatly under the above management.
3. Polar ligation should include both nerve and lymph supply to interrupt afferent impulses to glands since emotion and pain are potent factors in stimulating glandular secretion.
4. The radical operation should be so planned

that it could be stopped at any time the condition of the patient required it and the wound packed.

BIBLIOGRAPHY

- Magnus and Levy: *Berlin Klin. Wchnschr.* 1895, xxxii, 650, and *Zeit. f. Klin. Med.* 1897, xxxiii, 269.
 Hyman and Kessel: *Exophthalmic Goiter*, *Archiv. Surg.* Vol. 8, No. 1.
 Tinker, Martin B.: *Ann. Surg.*, Vol. lxxviii, No. 2, p. 153.
 Mayo and Pemberton: *Ann. Surg.*, Vol. lxxviii, No. 2, p. 145.

EARLY MEDICAL PRACTICE IN THE ILLINOIS COUNTRY*

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Of the three humanities,—religion, medicine and the law,—it was towards medicine that the virgin wilderness of the great Illinois country flaunted farrow fields, with the advent of the early French and English explorers, almost three centuries ago.

Oddly enough it is this rankest barrenness that has borne for "the Illinois country" the richest fruit. All the wealth and fame of the great Middle West is rooted indivisibly in the health of a citizenry, whose debt to pioneer physicians,—and to those doctors who have borne and are bearing this sacred trust through the years,—is a debt almost beyond payment. Without the low death rate and personal efficiency resulting from scientific sanitary policies and skilled, careful medical supervision by men and women whose medical training falls little short of genius, a community can not hope to attain place regnant in the scheme of civilization.

Those first doctors in the Illinois country seem to have been in many instances Jesuit missionaries. That there were others, who may have worshipped only Jove himself, records fail to reveal, but with a naivete holding the profession greater than the man, these pioneer physicians are mentioned time and time again merely as "le docteur." Confusion of identities makes it difficult to cull from archives exactitudes about the medical section of an exploring party.

In its infancy, the practice of medicine required of its servants that they should be able to dispense more than one art, and all of the practicalities. Pioneer doctors were apt to be the village blacksmith, cobbler, architect and choir leader to say nothing of the tasks of grave-digger.

They were men of ability who did what the day demanded, with their knowledge of the healing arts only one item in their bill of consecration to human need.

Justice being self evident, makes easy the way of the lawgiver. Religion being intangible by its very Divinity, can leave the specific results in the hands of the Almighty and the souls of men. Medicine, being both emergent and experimental, as well as hazardous in its definite and material results, leaves the practitioner in a savage, superstitious community, no better off than the weather man. His repute, his chance to serve, even his neck, hangs by a thread.

Realization of this condition did not deter for an instant the "chirurgeons" who crossed the Atlantic in sailing vessels to view and to conquer the Great and Unknown New World with its supposed short cut to India. Almost three centuries ago the medical skill of the white man was already being exercised by religion and medicine upon a people suffering from superstition and jugglery. These last named emotional maladies have not disappeared altogether from the Illinois country. Quacks and charlatans abound despite the Medical Practice act and the cults have as many pitiful skulldiggeries as did ever the Kaskaskias, Sioux or Pottawatomies.

In the bitter winter of 1674-75, the famous explorer and discoverer of the Mississippi river, Father Jacques Marquette, lay ill in an encampment upon what is now the site of Chicago. Writing in his diary at that time, Father Marquette sets down under date of Dec. 30, 1674:

"Jacque returned from the Illinois village, which is only six leagues from here. There they were suffering from hunger, because the cold and snow prevented them from hunting. Some of them notified La Toupine and the SURGEON that we were here. . . . As soon as the two Frenchmen learned that my illness prevented me from going to them, the surgeons came to me (to Chicago) with a savage to bring us some blueberries and corn. They were only eighteen leagues from here. . . . After the surgeon had spent some time here . . . I sent Jacque with him to tell the Illinois that my illness prevented me from going to see them. . . ."

April 6, 1675, Marquette wrote again:

"We have not been able to cross the dangerous rapids in the wind and cold, but we have

*Address before Jo Daviess County Medical Society, Aug. 26, 1924.

just met the Surgeon with a savage who is going up north with a canoe load of furs."

Even in those days, the doctor was the man who dared all and gave all for humanity. Unfortunately the name of this doctor is not mentioned. *Sieur de la Toupine*, the other Frenchman, was *Pierre Moreau*, who quickly returned from Illinois to Quebec, where Nov. 27, 1677, he married *Marie Madeleine Lemire*. They had thirteen children. It is generally accepted that this "Surgeon" was another Moreau, probably the one listed in *Tanguay's Genealogical Dictionary of French Canadians*, as "*Louis Moreau*," surgeon, born 1649, son of *Francis Moreau* and *Frances Dubout*, of St. George, Diocese of La Rochelle, in France. Surgeon Moreau married Feb. 21, 1678, *Elizabeth*, daughter of *Robert Gagnon*, and died in Quebec, Jan. 14, 1683, leaving two daughters. Of these *Elizabeth*, born Oct. 2, 1679, married *Gabriel Courtois* twenty years later, and *Genevieve*, born Nov. 4, 1681, at *Chateau Richer*.

La Toupine himself was a character. His close connection with the doctors is conjectured by some writers to have made him closely akin to some current pests. Speaking mildly *La Toupine* by some annalists is held to have been a run-runner. Scarcely less relentless than the battle royal waged by religion and medicine against superstition was the unending conflict between missionaries and those bootleggers of a bygone day who thrived on an illicit liquor trade with the savages.

Frequently the missionaries themselves were doctors, taking the double burden as a mere item—all in the day's work, and giving a man such infinite bodily relief from pain as to cause him to ponder on the virtues of what might be insured to that part of him that would eventually attain the happy hunting ground.

The foundations of a civilization laid three hundred years ago among the aborigines of the Mississippi valley made inexhaustible demands upon the missionaries and physicians. A list of sundries sent for from Kaskaskia by Father *James Gravier* calls for "one syringe, one livre of teriac, ointment, plasters, slum, vitriol, anise seed, six bars of soap, and pastils." From that same mission, Nov. 12, 1712, Father *Gabriel Marest* writes exultantly that "the care we have ourselves taken of the sick, and the remedies we give them which effect the cure of most persons, have ruined the credit and reputation of

the charlatans and forced them to go and settle elsewhere." Among the Peoria, the wind blew the other way. There Father *Pinneteau* perished from exhaustion. His companion writes that a little medicine, even a few drops of Spanish wine, might have saved his life. Later, too, Father *Gravier* met an untimely end from the very charlatans he had tried to defeat. He received a mortal wound from the arrow of a medicine-man. There was no surgeon to extract the arrow that had embedded itself in his arm. Down at Cairo, Father *John Mermet* ministered to the *Mascoutahs*. A plague broke out. There was no medicine. The jugglers sacrificed forty dogs, tied them to the tops of long poles, and with these banners marched forth through the village to fight the pestilence. Half the tribe died. The survivors fled in every direction seeking safety.

At Fort Dearborn from its earliest days there were physicians working both in the cause of humanity and of patriotism. One of the first of the fort doctors was *William Smith, M.D.*, who served there in the earliest days of the nineteenth century, to be exact in 1803, about a quarter of a century later than the time that *Dr. Jean B. Laffont* at Post Vincennes working under a commission from Fort Clark deftly turned one of the pivotal points of the Revolutionary War from British loyalty to American allegiance. Kaskaskia and Detroit were the two strategic points held by the British in the old Northwest. *Moses Henry*, an Indian agent, Father *Pierre Gibault* and *Dr. Laffont* were entrusted to secure the allegiance of the white men, the fealty of the Indians and the possession of King George's stores at the Post Vincennes. Both *Henry* and Father *Gibault* ceded to *Dr. Laffont*, the credit for the success of the mission.

The first white settler in Warren County was *Dr. Isaac Gilland*. Will County is named for a pioneer doctor. *Dr. Gershom Jayne*, the first physician to locate in all that vast district of Illinois lying north of Alton and Edwardsville and west of Chicago, served in the War of 1812. *Dr. George Fisher* and *Dr. William Reynolds* served in the Indian Wars in 1810 and through to 1813. These were dispensers of the healing arts in the Illinois Country, brave men and patient!

Busy physicians and surgeons who saw service in the Illinois Country during the Black Hawk War of 1832 were *Hiram K. Branson*, *William*

Constant, H. Delany, Adam Dunlop, Jacob M. Erby, George Gordon, William Headon, Charles Higbie, Jonathan Leighton, William Mitchell, Moseel D. Pepper, Addison Philo, Richard Romeis, John B. Rutledge, and John Warnsing. Look too, at Dr. William Bradsby, who, twenty-five years before Edward Coles, and fifty years before Owen Lovejoy and Abraham Lincoln was the uncompromising foe of slavery.

The trials and tribulations of those pioneer men in obtaining what are today considered as the simplest of medical supplies are almost beyond belief. Dr. Norman Bridge told in his book "The Marching Years" of the difficulties encountered even up until 1883 when it came to securing dissecting room material. Quoting Dr. Bridge, "That a person competent to treat and to operate on the sick human body must have had practical study of anatomy never occurs to half the people. . . . Not only is it indispensable that every practitioner shall have had this study, in order to be competent, but for this purpose bodies have, until recent time, usually had to be procured in illegal or illegal ways."

Dr. Bridge details in his book how in 1868 Dr. Charles T. Parkes and Dr. John M. Woodworth were put to secret trade with the county undertaker. Hairbreadth 'scapes were theirs but even so a better fate than that which befell Dr. G. W. Richards, who arrived at St. Charles during the first third of the nineteenth century, and shortly after Dr. Nathan Collins (1835), the earliest resident physician and Doctors Waite, DeWolfe and Crawford. In a "History of Kane County" published in 1878 it is stated "The name of Dr. Richards is now remembered by the early settlers from the riot which his practices occasioned and which resulted in the death of himself and one of his students. The doctor was a man of undoubted ability but extremely independent and radical in his views. He neither feared his fellow man nor regarded their prejudices and where it was possible to choose between two lines of action preferred to astonish and shock, rather than to conciliate. He had opened a medical school at St. Charles, where it had long been rumored by many of the people that his students were possessed of hyena proclivities. At length, positive proof was obtained that the body of a Mrs. Runyon, a young married lady who had recently died near Sycamore, had been

removed from the grave, and taken to his dissecting table. The robbers were tracked to Richards' doors, and the indignant father and husband of the deceased spread the story of the outrage throughout the northern part of De Kalb county. An armed mob, composed of some of the most respectable citizens of that county, joined by a delegation from Geneva, swelling the ranks to about 300, marched to the doctor's residence, formed in the street in the line of battle, and appointed a committee to wait upon him and demand the body. They were not only refused but treated with the utmost contempt. Shots were exchanged. John Rood, one of the doctor's students, was mortally wounded through the body, and Richards was so injured by a ball through one of his lungs that he died, in Dubuque, four years later, from its effects. There has been some diversity of statement regarding the person responsible for the first shot, but it is the general belief that it was fired from the house. After these war-like measures, it was promised that the body should be given up to the friends of the deceased. A number of students and others were despatched to remove it from the place where it had been secreted and it was delivered to the relatives at a designated spot between St. Charles and Geneva. The school was closed, and the young student who was wounded died a few days later."

Dr. D. K. Town was the first resident physician in Batavia. He began to practice there in 1839 and about 1854 founded Bellevue Hospital for the Insane, a private institution, with many innovations as to humane treatment for the patients.

In 1849 Kane County suffered from a visitation of Asiatic cholera that invaded all the river towns and was attributed to "foreign emigrants who brought the seeds of the disease with them." Dr. Eastman and Dr. H. M. Crawford bore the brunt of fighting the disease in St. Charles where the hospital was an abandoned coopers' shop. Dr. Crawford advised isolation when the first case appeared only to find his suggestion disregarded. Later Dr. Crawford went as a sergeant in the Civil war in the old "Fifty-eighth Illinois" and saw active duty at Shiloh and at Fort Donelson. At the battlefield the doctor was assigned to the post of Chief Operator and to the charge of general hospitals until its reorganization in 1864. He was at Vicksburg, Bull Run, and La Grange.

was Brigade Surgeon on Sherman's raid to Meridian, Division Surgeon on Red River Expedition, and Chief Operator for A. J. Smith's corps after Pleasant Hill and Yellow Bayou.

Dr. Joseph Tefft came to Kane County in 1835, traveling in the same party with Dr. Nathan Collins and his family. Dr. Tefft however was an Elgin pioneer. In 1836 Dr. L. S. Tyler went to Uchina in Plato Township and located. Dr. Tyler stayed eight years. He had gone to Kane County from Chicago, where he could find no opening, and was the first resident physician in Plato Township. An anecdote illustrative of the hardships of the country doctor during the first third of the last century is that relating how in December, 1836, almost ninety years ago, Dr. Tyler went to see a man named Moore, who lived between the Tyler claim and Dundee. The doctor traveled in a wagon drawn by two horses. Tyler's traveling companion was a man named Ranstead. About 4 p. m. they started for home. Three miles distant they came to Tyler Creek and found it frozen, partly thawed and dropped down so as to form a letter "V." It was a cold, clear moonlit night. "After some deliberation they concluded to see if the horses would break in, and so took them from the wagon for that purpose. Ranstead led in first, and the horse broke in. Tyler then led the other, a rather poor old horse, into the creek. The horse was badly shod, and his feet slipping from under him, he fell twice, when he gave up. Ranstead went to Olds, who lived a mile distant, for oxen to pull out the horse, while Tyler remained in water up to his waist and held up the horse's head, meantime, to prevent the beast from drowning. A rather worthless cur, with somewhat questionable habits that was with them, when the oxen came, seized one of the oxen by the nose. The animal set up a hideous bellowing and ran home. They then bethought themselves to fasten a rope to the horse in the creek, and haul him out with the other ox, which they successfully accomplished, and, leaving this horse on the bank wrapped in blankets they went to Olds for supper, having previously given the horse the remainder of a bottle of whiskey which Olds had that day bought in Elgin and had been thoughtful enough to bring to the rescue. After supper they went home and it was so cold that next morning, the ice would bear the wagon and team, and they crossed over in safety. Dr.

Tyler moved to Elgin in 1849." Dr. Daniel Pingree came to Plato Township in 1838, went to California in '49 and came back to Plato in 1860, to devote his time to breeding Norman horses. Big Rock Township's first two physicians came in 1838—Dr. J. H. T. Brady from New York and Dr. S. O. Long from Massachusetts.

Those pioneers had not in which to work the comfortable dwellings that aid the doctor of today. "The shanties were built of logs, unhewed, and with one or two rooms, according to the time and mood of the builder. If there were two rooms they were known as double log houses and were constructed by piling up two pens side by side." Shingles two feet or more in length, split from oak logs, and from lack of nails bound down by poles laid crosswise and extending the full length of the roof, with each tier of shingles resting upon similar poles formed the rafters and ran lengthwise instead of obliquely. Laying a roof was a fearsome thing. The entire row of poles was held in place by the pins underneath the lower one. Grotesque enough, but the roofs seldom leaked. There were ample fireplaces. Floors when they existed were of wooden puncheons and the doors, likewise of puncheons, had wooden hinges. Wheat went into Chicago on ox-team carriers. Savages traded fish and venison for flour and sugar and brought their goods to the housewives' doors. Wolves carried off the sheep, howled beneath cabin windows and were shot literally on the threshold—more material wolves than those besieging a doctor's door today. About 1837 Dr. Henry A. Miller settled in Geneva,—the first resident physician. A little later came Dr. Henry A. Madden. In 1837 Dr. Pierre Allaire was practicing at Oswego. In 1835 Dr. George Higgins was a practicing physician in Aurora. One of the ancestral anecdotes is that in 1836 when "famine stalked" and bran and water was thought thankful pabulum, a Miss Squires in the home of a Mr. McCarty and his family was sick with the ague while workmen shingled the roof, and she "shook so severely" that the workmen were frightened from the task.

The years have passed with varying fortune since those days almost a century ago. New problems, new perils, new crises confront the medical men of the Illinois country. Their answer to the question "What is best to do?" can

be found written in the history of every township in the state, where are to be discovered example after example of heroism, fortitude and vision. The unsung heroes of a rising race are these tireless altruists—the country's doctors!

Life in its cycles presents no new problems, merely varying aspects. Cults that threaten medical progress now were enbodied centuries ago in the crude jugglery of savage aborigines. Perseverance, unity of purpose and consecration to medical ethics and to the ideas of democracy was the lode star then as it must be today. To those pioneer doctors and surgeons of three centuries ago who trod the Illinois country side by side with the moccasined redskins, the doctors of today who will be the pioneers of tomorrow, can do no less than offer the tribute of a silent promise to "carry on."

AMERICAN WOMEN AND PATERNALISM DO WOMEN KNOW HOW LEADERS COMMIT THEM?

MRS. GEORGE MADDEN MARTIN

LOUISVILLE, KY.

The *Atlantic Monthly* in its June issue printed an article entitled "American Women and Paternalism" by Mrs. George Madden Martin. Permission to reprint has been given. It is an article worth reading in its entirety in the *Atlantic Monthly*.

Is the American woman, judged by what she has done with the vote and by what she is endeavoring to do with it, paternalistic by nature and habit? Is it that she sees in the central government what the primitive women saw in her lord and master? That she seeks her legislative ends through the Federal arm as she from the beginning of the race has sought her personal ends through the strong arm of the individual man, and its power to defend, ensure and enforce? . . .

It seems to me, when I consider what we women here in the United States have done with the vote in the first three years of our enfranchisement, and are planning to do, that Uncle Sam in the minds of the American woman today, stands in her political world as the Southern father stood in his household: as the strong arm of her lord and master stood to the earlier woman; that is, as the agent or instrument, the authority or vested power, through which the in-

dividual, or the individual group, shall and must move to obtain its ends.

Keeping in our minds, then, the question, "Is the American woman paternalistic?" suppose we take as our measure of values the following premises left us by two of the forefathers.

Washington says:—

If, in the opinion of the people, the distribution of the constitutional powers be in any particular wrong, let it be corrected in the way which the Constitution designates.

But let there be no change by usurpation, for this, though it may in one instance be the instrument of good, is the ordinary weapon by which free governments are destroyed.

Lincoln says:—

It is my duty and my oath to maintain inviolate the rights of the States, to order and control, under the Constitution, their own affairs by their own judgment exclusively. Such maintenance is for the preservation of that balance of power on which our institutions rest.

With these premises in mind, suppose we look at what the women here in the United States have done with the vote through national legislation, from November, 1920, to December, 1923: and what, through national legislation, they are endeavoring to do.

One of woman's own organs, the *Woman Citizen*, says:—

When one speaks of women's national legislation work, one means that Washington group representing fourteen national organizations which make up the *Women's Joint Congressional Committee*.

And since we want to realize who are the women seeking to influence government, it may be a good thing to line them up here:—
American Association of University Women
American Home Economics Association
General Federation of Women's Clubs
Girls' Friendly Society in America
National Congress of Mothers and Parent-Teacher Associations
National Consumers' League
National Council of Jewish Women
National Council of Women
National Federation of Business and Professional Women

National League of Women Voters

National Women's Christian Temperance Union

National Woman's Trade Union League

National Board of the Young Women's Christian Association

Service Star League

Besides the fourteen groups here named, there is the National Woman's Party, which also is exerting political influence in Washington. The activities of that group are not touched on in this article, however, discussion of them calling for a separate consideration.

It is the first-named fourteen groups which, representing some millions of women and concentrated in this Women's Joint Congressional Committee, put their strength behind and won—or aided in winning—the following measures:—

The Sheppard-Towner law. "A measure for women, won by women," designated to secure through combined Federal and State aid the protection of mothers and new-born babies.

The Cable law. "A measure of straight feminism," establishing through Federal control the right of a married woman to citizenship independent of her husband.

They also:—

Made permanent: The Woman's Bureau of The United States Department of Labor.

Helped to secure: The bill for the reclassification of the Federal Civil Service.

Gave assistance in passing: The Voigt bill to prevent the shipment of "filled milk" in interstate commerce.

Exerted pressure to get: A Federal Coal Commission appointed.

Measures asked for by women, but not yet won, are:—

The continuance of the Inter-departmental Social Hygiene Board by its transference to the Department of Justice.

A Child Labor Amendment to the Constitution.

The Fess Amendment to increase appropriations for training in home economics.

A uniform divorce law.

The Sterling-Towner, or Sterling-Reed Bill, as it is now called. A measure asking for a Federal Department of Education, with a secretary in the Cabinet, and one hundred million dollars annually to be distributed; fifteen millions for the maintaining of the department, and eighty-

five millions for distribution among the states under the observation of this secretary.

Here then are the things which the women of the United States have done with the vote through national legislation, and are trying to do. Excellent measures in themselves, every one of them, no doubt, but in their nature paternalistic. All tending toward a centering of the governing power, which in turn means excessive government regulation and a piling up of the bureaucratic system. Yet the millions of women who—through these organizations and this Women's Joint Congressional Committee—are behind these measures are convinced as to their excellence, and conscientious in their endorsements. Of this I am sure.

They are convinced, and they are conscientious, that is to say, *so far as the individual women who make up these organizations know anything about these measures.*

To instance: The General Federation of Women's Clubs is, at this moment of writing, behind the Sterling-Reed bill. Yet of sixty individual members of clubs within the Federation, recently asked for their opinions on this measure with its proposed Federal assumption of what up to now in our national history has been the duties of the states, fifty-three, by their own statements, never have heard of it.

Herd instinct is as common to women as it is to men. The American woman not only is as gregarious as the American man,—as is evidenced by her nation-wide passion for group organization,—but she, within her clubs and federations, is even more ready than, say, the male rotarian, optimist, booster, and so on, to accept leadership unquestioningly. In this, it may be, she is but running true to her centuries of inclusion within the group which functioned through its vested head. Whatever the explanation, it is my experience that "isolation through intellectual withdrawal" is rarer among American women than among American men.

Relying upon our leaders, the mass of us organized women too often know little or nothing about the measures which we from time to time endorse. And as a woman's club member of thirty-one years' standing myself, I hold I've a right to an opinion.

"George," in the person of the accredited male, has "done it" for women through so many centuries that George today, as personified by our

accredited women-leaders, is a change only in sex and personality. And often the immediate George, in the person of a local woman-chairman who presents a measure or a cause to her club, is speaking at the instance of still another George, in the shape of a central or national board; or again, at the request of some other organization.

Mrs. B——, the local chairman of our own or any club, arises on the appointed day. Her proposed interpolation into the business or the program for the day has been arranged for, expedition through well-oiled machinery having come to be more and more necessary in club routine.

Mrs. B——, who is an experienced parliamentarian, is also a specific thinker, concerned not with general principles as a rule, but with concrete business. She has assembled her case with efficiency—which is to say, she has assembled for her use all those points supplied her by the sponsor back of this measure or cause, which are favorable to it. This does not mean that this measure or cause is fundamentally vital or even dear to Mrs. B—— or, at any rate, dear to her prior to the day before yesterday when as chairman of, say, general legislation, or child welfare, or forest conservation, or what not, she in the routine of her official business became the spokeswoman for it. Nor does it mean that Mrs. B—— lacks in conscientiousness. It means, on the contrary, that she, in accordance with her ideas of a departmental chairman's duty and loyalty, is doing her best for the measure. And in accordance with her ideas of a chairman's duty and efficiency, she is getting her measure successfully across and out of the way, with as little loss of the club's precious time as may be.

The chairman, having thus done her part, sits down, and the presiding officer glances at the watch upon her desk. It is nearing five o'clock, which is the hour for adjournment and home.

"All who are in favor of this club going on record as endorsing this bill now before the legislature of our state,—or the House, or the Senate, at Washington,—will please say *Aye*.—The *ayes* have it."

Nor is this an exaggerated illustration of the methods by which false impressions are often conveyed by committees who, seeking to influence legislation, claim they voice the demands of the millions of women within the various organizations.

These herd habits among organized women were grave enough prior to 1920. But with woman now an enfranchised citizen, such group movements, under leadership, and free of the individual responsibility, assume graver possibilities for mischief. "Boomerangs" suggest themselves to the mind; also "edged tools"; and again, "Fools rush in" and so forth.

Obediently and pliantly we women within our organizations thus endorse, apparently unaware that no thinking creature has a right to an opinion on any subject touching the public weal unless it rests upon the best information to be had on the subject by the individual.

Conceding to these accredited women leaders of ours this full understanding and consequent right to an opinion, why is it that they knock so constantly, and in our names, at Uncle Sam's door?

Johnny, symbol for the state machine, say, is wasting the forests of his state, even as Johnny, the small son of some woman among us, in his day wasted the contents of the cookie-jar. Johnny's mother, had she appealed to Johnny's father to punish the son for a transgression coming within her jurisdiction, would have been acknowledging her own incompetency. And these women leaders of ours are acknowledging themselves, and us, to be poor citizen-housekeepers within our individual states, when they cry in the name of the women of the state, "Uncle Sam, make us a law, a Federal law, requiring—yes, compelling our Johnny, who is wasting the forests here in our state, to behave."

Why Uncle Sam, and why a Federal law? When it is clearly our duty as responsible parts now of our local governments, to make our own state behave—our duty to remember, if indeed we've ever grasped, that in respect to our Federal Government "an irreducible minimum of compulsion is the very essence of good government." . . .

We reach another point here. Woman throughout her long past, with her narrowly centered activities, has not concerned herself with the sources whence her needs are supplied. From her place beside the newborn, the suffering, and the old, she has looked to man:—

"Bring the herb, the exorcist, the physician, the leech, the surgeon."

So woman here in the United States today, with her thoughts centered upon the innumerable

children who through illiteracy are deprived of their chance in life, looks to Uncle Sam.

"I want better schools and more of them. I want higher pay for teachers. I want longer school terms. I want equipment, and plenty of it. I want illiteracy wiped out, and wiped out quick, and you to pay for these."

An uncle of mine, back in those same days when I was a child and greenbacks were the legal tender, one day brought me a newly minted silver half-dollar. I plied him with questions.

"Where did you get it?"

"From Uncle Sam."

I grasped this, "Where did he get it?"

"From his mint, where his money's made."

Whereupon I saw Uncle Sam's mint pouring out silver half-dollars as a certain old water-mill known to me poured out cornmeal, and Uncle Sam filling and refilling his pockets at need.

It almost would seem that the American woman in her turn thinks of Uncle Sam's money as inexhaustibly at hand. That she does not grasp, for example, that our Federal Government, in order to give one hundred million dollars to the states every year for education, as she is urging that it shall, must take these same hundred millions out of the pockets of the people in these states. She, on the contrary, appears to think that the states in such event will be the recipients of bounty—beneficiaries who get something for nothing.

The American woman has been accused of lacking the laboratory—the scientific spirit: this in the business of the home, as in other affairs which are her own. The spirit, that is, which experiments in the small, and having reached a better and closer knowledge through observation, trial, and reasoning, offers the conclusions to the world.

Woman in the United States, as represented by these fourteen organizations, is putting her strength—at the moment these words are being written—behind a uniform divorce law. Within the scope of such a law, the antipodes, as it were, are to be brought together, which is to say, South Carolina and Nevada. There is more here perhaps than at first appears.

South Carolina, to take her case first, never has recognized divorce, and may have her ideas about this. It is possible even that the women within these fourteen organizations will be up

against a bit of psychology here themselves—state psychology. South Carolina—or so those who know her at all suspect—sees in this stand of hers, maintained through a hundred and thirty-odd years, not alone the isolation of the higher virtue but—and here we reach the crux—a social withdrawal, a class distinction, a group elegance. Were she less well-bred, were she not the scion of a genuine aristocracy, she might be heard to thank God that she, as regards divorce, is not as the other states. Whereas Nevada, who sponsors Reno as her own, sees in divorce an asset, a commodity with a market value; promotes divorce as a source of revenue. Or so the rest of us are led to believe.

Have the women who speak through these fourteen organizations, and who would impose a uniform law on these two states that represent the extremes of opinion upon divorce—have these women, then, a law to offer the forty-eight states? And have they reason to believe that it is a good law—a law that has been tried out?

Back in the patriarchal 70's, a boy, one Billy W——, lived two doors from my home. He lived to experiment. His workshop, which was a bench in the corner of his father's stable, was as famous in our neighborhood as the Little Scorpions' Club is in the nation today. He was borne out on a plank and to the hospital on one occasion, a scalded victim of experiment as centered in a miniature engine and boiler. Still another time he blew himself through the roof, rafters and window-sashes along with him. But—and mark you this, dear ladies—he experimented in his own family stable, not in mine, nor in his other neighbors'. It was himself he blew up, not us.

Why not draft a model divorce-law; then persuade some one state—New York State has a proverbially bad law—to try it out. How long did the laboratories labor to find, say, the diphtheria serum? And M. and Mme. Curie to discover radium? A good divorce law having been proved, offer it to the remaining forty-seven states.

We have a precedent in procedure if we care for one—a case in point. Some years ago the American Bankers' Association recognized the desirability of uniform laws with reference to negotiable instruments, to do away with the confusion caused by the different laws in the different states. And after careful consideration they drafted a law known as the Negotiable

Instrument Act, which then was presented to the legislatures of the different states by the local bankers, and adopted in its entirety by all, or practically all, thus giving the uniform legislation desired.

The duty of the father is to protect against outside aggression. Also of the Federal Government—"protection" by the government meaning to secure to the states and to the individual the rights reserved to each under the Constitution. If the government goes beyond this, it becomes not a protector but an aggressor. In government regulations of commerce, labor, railroads, press, government relief of the poor, government systems of education, there is danger.

"The mischief begins when, instead of calling forth the activities and powers of individuals and bodies, government substitutes its own activities for them; when, instead of informing, advising, and upon occasion denouncing, it makes them work in fetters or bids them stand aside and does their work instead of them. The worth of a state is, in the long run, the worth of the individuals composing it."

Is it that we women here in the United States need to look at things, for a bit, in the large? That we need to realize that our present weakness as citizens lies in the ignorance of our wider ignorance? That we need to lift our eyes from the particular wrong to the especial group, and, sweeping the horizon of the whole, see that there is no graver question in modern popular government than "What shall government do for its citizens?" and "How far shall government interfere with the actions of its citizens?"

THE OPERATIVE TREATMENT OF OZENA.

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The victims of ozena form a sort of an out-cast class in rhinological practice. There is something mystifying about this affliction which so far baffled every therapeutic approach.

In 1911, at the instance of Alexander, the International Congress for Laryngology, meeting at Berlin, called for an international survey of the ozena problem. The impetus thus given en-

listed the labors of many investigators. Kuttner of Berlin and Jonathan Wright of New York presented exhaustive reviews of the literature. Elmiger, Rohr, Greenwald and others carried on extensive researches. Perez developed his infectious theory and isolated the so-called Perez bacillus. While Hofer and Kofler elaborated an ozena vaccine.

The most important contribution, however, from the standpoint of treatment, was made by Lautenschlager and Halle.

The extraordinary wide roominess of the nasal chambers in ozena did not fail to impress observers as a most obvious factor in the crust formation and consequent fetor. It was to be expected that students of ozena would turn their attention towards devising means tending to bring about a narrowing of these spaces. Various plans were suggested which had one common principle. It consisted in introducing a foreign substance underneath the nasal mucosa. The substances used ranged from paraffin, ivory and cork, to bone, cartilage and blood. Each method had its advocates who had improvements and cures to report. But these successes proved to be only temporary. It seems that the tissues impoverished by ozena react gratefully, for a time, to the introduction of an irritant. This fact has been noted in almost every procedure. But unfortunately it has also been noted that this seeming reawakening was not long sustained, that in a short time the tissues would again recede to their former devitalized condition. Moreover, these procedures necessitating the introduction of foreign bodies were not free from other objections. In the case of paraffin it often happened when soft paraffin was used, that it oozed out of the tissues, and when hard, cold paraffin was used, it often collected in hard masses which eroded through the thinned mucosa. The same is true of ivory and cork. Again, the danger of paraffinoma must not be lost sight of. In the case of bone or cartilage there were two deterrent considerations. In the first place these substances were not infrequently resorbed. In the second place these necessitated a preliminary operation for the procurement of the material, and in the case of bone, usually obtained from the tibia, it had the additional objection of, to a degree, weakening the limb. Besides, these procedures had to be repeated more than once

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and did not result in an even, smooth, uniform narrowing of the nasal spaces, but on the contrary formed partially shut off recesses, where crusts accumulated in inaccessible places. Due to these considerations these procedures found little favor with the profession.

To Lautenschlager belongs the distinguished merit of having conceived the happy thought which is destined to influence greatly the treatment of ozena the world over. Like all inspired conceptions, it is simplicity itself when stated. He argued that the natural way to narrow a chamber is to move the opposing walls towards each other. It occurred to him that this should apply as well in the chamber of the nose. These chambers are formed by two lateral and a common median wall—the septum. As ozena is a bilateral condition, and as the midial wall cannot be moved both ways at the same time, it became evident that the lateral walls were the ones to be moved. Such reasoning, and other consideration led Lautenschlager to propound this rather daring and unique measure:—to narrow the nasal chambers by displacement of the lateral walls toward the septum. He accomplishes this feat by entering the maxillary sinus from the canine fossa through the labio-ginival incision, break through the naso antral wall anteriorly and at the base, and force it toward the septum. Having done this, he still aims to find some remaining ledge of bone at the base of the wall which he fractures and inserts under the mucosa of the nasal floor. This last maneuver serves to raise the level of the nasal floor and at the same time anchor the displaced wall in its medial position. The narrowing of the nasal chambers thus brought about constitutes the first major act of the Lautenschlager ozena operation. It is by no means the last.

In his studies of the ozena problem, Lautenschlager brought forth the theory that the origin of ozena is to be sought for in an affection of the mucosa of the accessory sinuses, acquired early in life in consequence of a nasal infection. He believed that as long as this diseased mucosa remained all operations were unavailing to bring about a permanent cure. He was able to substantiate his contention in a number of his cases by finding demonstrable gross pathology in the sinuses, particularly the sinus maxillare. In the other cases he had recourse to microscopic evi-

dence to support his claims. He accordingly felt constrained to state that the exigencies of his operation required the careful and painstaking removal of the maxillary sinus lining in all cases, and reline the denuded cavity with a healthy mucous membrane. The question where to get this new lining was speedily answered by the formation of an extensive flap of the buccal mucosa, turning it into the antrum through the labio-gingival incision, and holding it in place by packing. This forms the second major act of the operation. Even this, however, did not abate Lautenschlager's masterful enthusiasm. There still were, he believed, other requirements to be met.

The renowned Wittmaack now came upon the scene and pronounced favorably upon Lautenschlager's elaborate technique and bestowed upon it a not inconsiderable additional step. Wittmaack believed that saturation with the secretion of the parotid gland had a revivifying effect on ozena-ridden tissues. A new problem now confronted the sorely tried surgeon and his patient: how to get the flow of saliva into the accessory sinus cavity and into the nose? This Wittmaack succeeded in solving by including Stenson's duct into the aforementioned Lautenschlager's buccal flap. He closed the oro-antral fistula as soon as the flap grew in the antrum. He thus deflected the salivary flow from the mouth into the antrum and thence into the nose through ostium maxillare. This, seemingly, satisfied all the requirements he could think of, but it did not seem to satisfy the patient. In fact, it left him in a very sad plight. Taking food, even the thought of food, nay, the mere act of empty swallowing resulted in a gush of saliva from the nose! Halle relates of patients who implored him in their wretchedness and misery to undo the Wittmaack achievement and restore them to their former condition. Lautenschlager even reports a suicide! But Lautenschlager had a zeal for combating difficulties that nothing would daunt. Having finished with two herculean labors, he was eager to encounter a third. He saw in the Wittmaack experiment a challenge to his ingenuity and determined to accept it. He adopted Wittmaack's third major act as an integral part of his operation and sought to free it from its unpleasant features by leaving the oro-antral communication permanently open! Thus the saliva

excreted into the maxillary sinus would forthwith flow back into the mouth. Only a minimal amount finding its way to the interior of the nose.

By this time the Lautenschlager operation assumed such formidable proportions that few of his most ardent followers had the courage to undertake it.

Halle, the most dexterous rhinologist in Europe, after according to Lautenschlager a deserved mead of praise, declared himself unconvinced that an early acquired sinus infection lay at the root of every case of ozena. He finds it difficult to understand how a sinus infection which ordinarily gives rise to the usual accessory sinus suppurations should, in these cases, result in ozena. Again, sinus infections are quite commonly unilateral, whereas ozena is usually a bilateral condition, nor does the sinus infection theory explain the preponderance of ozena in the female sex. Moreover, the number of cases of ozena, in which macroscopic pathology can be demonstrated in the accessory sinuses are comparatively small—and these almost without exception in the sinus maxillare, seldom in the ethmoid, very rarely in the sphenoid and quite never in the frontal! These considerations led Halle to conclude that the treatment of the accessory sinuses in ozena be left to the discretion of the surgeon who should be guided by definite indications in each individual case and not by a rule of the thumb. He further rejects the parotid duct implantation, and the buccal flap transplantation as irksome and unnecessary. And lastly, he greatly simplifies the principal procedure—the displacement medially of the lateral nasal walls. He operates by the intra nasal route, in a manner not unlike the Canfield operation. The technique is as follows:

Local anesthesia applied by swabbing the nose with a ten per cent cocaine with the addition of a few drops of adrenalin. Injection of $\frac{1}{2}$ per cent novocain with an adrenalin addition into the mucosa of the septum, the nasal floor, the lateral wall, particularly in the inferior meatus and in the mucosa anterior to the middle and inferior turbinates. Infiltrate the facial wall of the maxilla and one will do well to inject the same solution into fossa Pterygo-maxillaris. Wait ten minutes and begin the operation. With a knife or sharp curette scarify the medial surface of the inferior turbinate, taking care to

scrape off the epithelium only but not injure the deeper structures. In the same manner scarify the opposite portion of the septum. Now start an incision immediately in front of the head of the middle turbinate downward in front of the inferior turbinate close on to the bone. Continue the incision to the floor of the nose, then transversely across the nasal floor to the septum a little behind and parallel to the margin of the aperture pyriformis. The line of incision is well indicated by the thumb and index finger abducted to form a right angle. (Figs. 1 and 2).

Elevate the mucosa of the nasal floor medially to the septum and laterally to a little above the junction of the floor and the lateral wall. (Fig. 2).

Put a straight slender chisel in the vertical incision in front of the turbinates and chisel



Fig. 1—a. Anterior incision; b. detachment of base shown by dotted lines; chisel in position to enter the antrum.

through the bone into the antrum. Avoid splintering the bone by not going through at one blow but rather mark your way with the chisel by tapping along the entire length of the incision carefully back and forth. (Fig. 1). Lastly chisel through the lateral wall on the line of junction to the nasal floor. This is done submucously under the previously elevated muco-periosteum of the nasal floor. The detachment of the lateral wall from the nasal floor extends to the posterior wall of the maxillary sinus. (Fig. 2).

When you are sure that the lateral wall is fully and freely detached at all points from the nasal

floor, then you enter the antrum cavity with a flat, smooth, strong elevator from the anterior incision in front of the turbinates and press the lateral wall medially onto the septum. This must

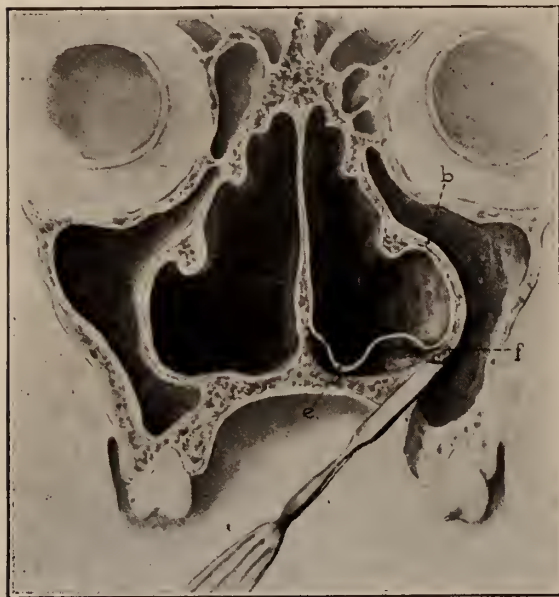


Fig. 2.—a. Sinus maxillaris; b. lateral wall; c. septum; d. nasal chamber; e. mucosa of nasal floor elevated; f. chisel in position for detachment at the base.

be done throughout the entire extent of the lateral wall. The middle turbinate must also be forced over. (Fig. 3).

Now the maxillary antrum is fairly open for inspection. If the mucosa appears normal it may be left alone. If diseased, it may be curetted away from this opening, made larger if necessary by the removal of a small portion of the anterior projection of the apertura pyriformis.

When the lateral wall has been well forced to the septum, it forms with remaining anterior portion of the wall an acute angle. From here you may easily inspect the ethmoid. Insert a piece of iodoform gauze into this angle now and at each subsequent dressing to hold the lateral wall in contact with the septum until the expected synechia have formed between the inferior turbinate and the septum. The entire cavity of the antrum is snugly tamponaded. (Fig. 4).

The first tampon remains in the antrum cavity for five days or even longer, because the tissues in ozena are predisposed to bleeding. Experience has shown that the long continued tampon-

nade has no ill effects. The danger of an ear infection is no greater in this instance than in any other judicious packing of the nasal cavity. Middle ear infections are more apt to appear after the removal of the packing when the patients exert themselves in much and wrong nose blowing. After the dressing is changed for the second time, it generally suffices to pack a small piece of iodoform gauze in the above indicated acute angle. This should be changed every five to eight days until the expected synechia have formed. This usually takes place in the second to the third week. It is, however, advisable to continue this small tamponading for some time after, altogether, to a period of six weeks from the time of the operation. When the packing is finally stopped, there speedily occurs a complete or almost complete closure of the opening into the maxillary sinus.

When the writer worked with Halle in 1922-23 he became interested in this unique operation. On his return he adopted, with some modifications, this technique in his work at the Illinois Charitable Eye and Ear Infirmary and at the Mt. Sinai Hospital of Chicago. Of the modifications,

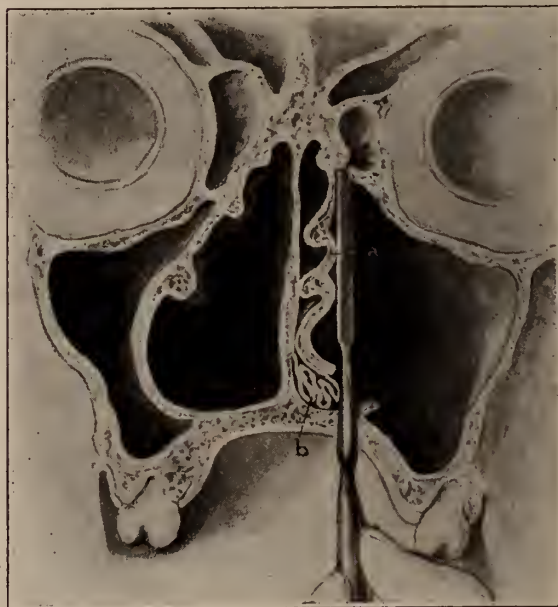


Fig. 3.—a. Lateral wall completely detached and moved towards the septum; b. mucosa of nasal floor gathered into folds.

he would mention the freshening of the mucosa of the nasal floor. When the lateral nasal wall is displaced medially, it carries the previously elevated mucosa of the floor of the nose along

with it which becomes gathered into folds, effectually obliterating the enormous cavern of the inferior meatus. He found that the freshening of this mucosa aids in its organization into a thick pad forming the new narrowed and elevated nasal floor.

The results which are obtained with the operation fully equal those obtained in the European clinics. The lateral nasal wall is displaced uniformly throughout its entire extent.

The approximation of the walls seems to have a magical effect upon the tissues of the nose. They soon lose their forlorn and wretched ap-

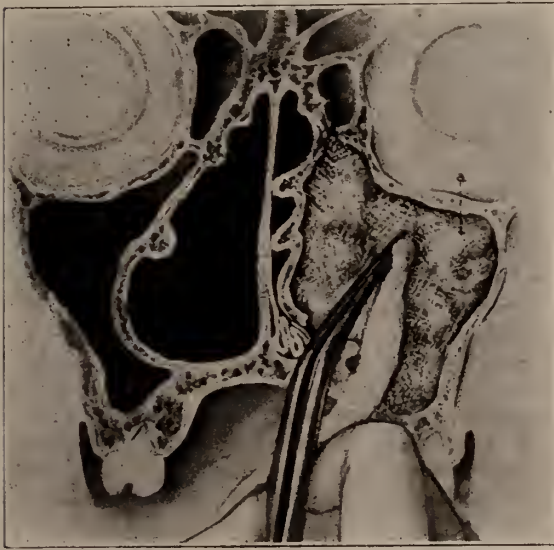


Fig. 4—a. Snug packing of antrum holding lateral wall against septum.

pearance and take on new life. The new relations restore normal respiratory condition and improve circulation and nutrition. The expected synechiae usually make their appearance in the second or third week and help in keeping the displaced wall in its new position. The successful operation is the one which brings about, at first, an over correction—a reversal of conditions—the abnormally wide nostril changed into an abnormally narrow one because the structures tend to recede to their former position. One does well to maintain this over-correction for a long time, and synechiae help to maintain it. When the lateral wall has acquired the "habit" of its new position and the tendency toward recession has been dissipated, then the synechiae may be cut through and if necessary the displaced wall forced laterally to provide sufficient breathing

space. This seldom becomes necessary and should not be attempted too soon.

The narrowing of the nose brought about in this manner is vastly superior to all those procedures which attempt to effect it by the introduction of various substances under the mucosa. It is free from all the objections urged against the other methods which were previously enumerated. By it the lateral wall is displaced uniformly throughout its extent. It is accomplished at one sitting—both sides being usually operated on at the same time. No foreign body is introduced exposing the tissues to ulceration or other deleterious effects. No preliminary operations are required at the risk of injury to another limb. But over and above all else, it possesses the great advantage of exposing the maxillary and ethmoid sinuses to inspection and to treatment if necessary—and that is necessary in a number of cases. This advantage the other method does not offer. This consideration alone, were there none other, should stamp all these measures as inadequate. Only the Lautenschlager operation, simplified by Halle's technique, deserves consideration in connection with the "operative treatment of ozena."

While at Halle's clinic, the writer examined many cases of ozena operated on within one to two years. Only the clinical record proved them to be such. There were few, if any evidences of ozena present. Even the post nasal mirror revealed no crusts, there was no odor. The patients manifested a deep gratitude and those who knew them testified to a marked improvement in their psychic makeup. The knowledge that they were afflicted with a malady which made them socially objectionable no longer oppressed them. The unbearable sensation of monstrous masses piled up in the nose was gone. The vain, daily struggle for their removal no longer harassed them. The dry, crust-laden soft palate, posterior wall of the pharynx and vocal cords, became moist and free again. Many of these patients recorded a return of the sense of smell which was long absent.

Our own experience with this operation at the Illinois Charitable Eye and Ear Infirmary and at the Chicago Mt. Sinai Hospital served to deepen the favorable impression. Let me cite a few cases.

A. B., 28 years old, presenting an advanced ozena complex. The unbearable odor made him obnoxious to everybody who came in contact with him, particularly to his wife. Operated on in December, 1923.

Soon after the operation improvement was noted. Packing the antrum discontinued after six weeks and irrigation stopped after two months. He soon noted a return of the sense of smell which was absent for many years. Six months after the operation he and his family declared themselves very satisfied with the results of the operation and very happy.

C. F., women, 26 years old, married, pronounced case of ozena. Her timidity and untidiness betraying a dejected state of mind, on inquiry as to what symptom oppressed her most, she said it was the odor. She herself was not aware of it, but her husband could not stand it. She avoided the company of friends and her entire behavior evinced the state of mind of one who knows oneself shunned. Operated on in January, 1924. Two months after the operation this young woman underwent a remarkable metamorphosis. She became a new woman. She appeared at the clinic with her hair bobbed, dressed in her best, powdered and rouged, good looking, spirited and confident. Her entire personality seemed to proclaim that a malevolent spell has been lifted and that she was set free.

Most of the other cases have similar records.

The writer, as far as he knows, is the first to introduce this operation in Chicago and one of the few in this country who are conversant with it. The number of cases he had an opportunity to operate on since he began this work ten months ago is necessarily small—twenty-four cases in all. The time which elapsed since the operations is too short. Taken by itself, his experience is not ripe yet for final conclusion, but viewed in connection with what he witnessed abroad, he is justified in warmly recommending this operation to his American colleagues.

Those who watched this work at the infirmary, both attending men and visitors, were deeply impressed with the merit of this operation and bear out the writer's belief that in it we possess, for the first time, something of real value to offer to the sufferers of this distressing condition and that it deserves a place as an important acquisition to our Rhinologic Surgery.

In conclusion the writer wishes to express his appreciation to his colleagues at the Illinois Charitable Eye and Ear Infirmary and at the Mt. Sinai Hospital for the interest shown in his work and for the encouragement given him by referring clinical material. In particular the writer wishes to thank Dr. Henry B. Boettcher, Dr. W. L. Noble, chief of staff; Dr. Leo Steiner, managing officer, and Dr. Harry Woodruff. It is due to their kindly interest that the writer was enabled to form a nucleus for an ozena clinic at our be-

loved institution, the Illinois Charitable Eye and Ear Infirmary.

Cases of ozena are not numerous in any one individual practice. Only by the co-operation of the profession, an effort may be made to correlate this class of cases in one clinic and equip it for their systematic study and treatment.

DISCUSSION

Dr. W. L. Noble, Chicago: I think it is proper to call attention to this work of Dr. Schoolman's for two reasons; first, because of the carefully prepared and comprehensive way in which he has developed this work in America and, second, because of his careful study of the previous work in Europe and his thorough knowledge of the anatomy of the face.

Through the cooperation of all his associates at the Illinois Charitable Eye and Ear Infirmary he was able to secure a number of cases. It seems to me it promises well for the future as to what may be developed at the infirmary by practical men who are doing work for the people of Chicago everywhere. It is becoming more apparent every day that the infirmary is one of the best charities that the state supports, because it takes people who are dependent and unable to work and makes them independent and self-sustaining members of the community. There is a different atmosphere there and in the nature of things there has to be a different atmosphere, from that found in the medical colleges because here there is a large group of men working on live material, whereas in the medical colleges there is only one man at the head of the department and every one has to follow his dictum. Oftentimes the success of a department from a teaching standpoint is more important in the mind of its head than the practical results. The infirmary is doing practical work all the time.

Dr. C. F. Yerger, Chicago: As a co-worker of Dr. Schoolman's at the Eye and Ear Infirmary I want to say a few words on the subject. First, I want to say that I think the Eye, Ear, Nose and Throat Section is particularly fortunate this morning in having heard the two previous speakers, Dr. Robertson and Dr. Schoolman, and to Dr. Schoolman I think we owe a debt of gratitude for making this subject so real before our eyes, demonstrating each step in the operation both by word and by the use of the slides. The operation I think is plain enough to all who have had the pleasure of seeing and hearing his description. At the infirmary we have tried to give him all the ozena cases, knowing that he was interested in this special work. I can testify as to the result in some of the cases. Unfortunately I did not see Dr. Schoolman do any of his operations, but I have had an opportunity of seeing some of the patients on whom he has operated and I want to check up the statements that Dr. Schoolman has made in his paper as to the results he has obtained. In the case of the man 28 years old, and in the case of the young lady he really transformed these patients into cheerful, optimistic citizens

with an entirely different outlook on the world. This operation has an influence socially and economically and if we can do some good in a condition that heretofore has been without result, therapeutically speaking, it is certainly worth trying. We know that we have temporarily influenced this condition by different treatments, such as the sugar treatment, the trichloroacetic acid treatment, etc. In the method here presented we have come to the stage where we have something definite, something lasting in a group of cases that will be benefited permanently. What proportion of these cases will be benefited by this operation, of course, I do not know, but I think we can say that not all cases, according to the reports in the literature, are benefited by operation. What cases will be benefited and which will not remains for the future to determine. It seems to me that we should try this operation in all cases and watch the outcome. It seems in cases in which the antrum is affected and which are permanently drained by making this large opening into the antrum, producing a so much larger antrum cavity, that we have a more or less permanent drainage. My personal experience is limited to one case which was operated on in the Cook County Hospital. I have just a few remarks to make on that case.

One is about scarification. I did a bilateral operation. On one side I scarified and on the other I did not. It seems to me scarification is not necessary and it makes the operation more difficult; it predisposes to hemorrhage and it traumatizes tissues that it is not necessary to traumatize. I can say that hereafter I will not scarify. I do not think the reason for scarification is practical. Those synechiae you get will do more harm than good. You will have substituted a condition of synechia for something else. You can say, "We will divide them." You can divide them and you can keep on dividing them and every time you divide a synechia you produce more trauma and cause more scar in the epithelial tissue. If you obviate that I think it is important. I think more important is that you cut your lateral wall so that you can move it over, because if you bring your lateral wall over toward the septum and keep it there by packing you will not need a synechia to hold it.

Another thing, I did this operation on the cadaver before I did it on the human and I found in making the anterior resection just about where Dr. Schoolman had his diagram of the vertical incision, that is involving the nasal process of the superior maxilla, I noticed on chiseling when I used the mallet that no matter how careful I was I had to use a lot of force. In using that force I fractured the nasal process of the superior maxilla, splintering it. I could not control the line of incision in the bone corresponding to the line of incision in the mucous membrane.

It is difficult to figure out how the nasolacrimal duct can be avoided so as not to cause a laceration of the duct and having as a postoperative sequelae a stricture.

Dr. C. H. Long, Chicago: First, I want to thank Dr. Schoolman for introducing this operation in Amer-

ica. It reminds me of a little incident which occurred several years ago when I was in general practice. A health officer came over and said "We have got to do a lot of vaccinating here for smallpox." A very important surgeon replied, "What is the necessity? We have found the germ of smallpox." The other said, "No we have not found the germ of smallpox." Finally, after the discussion had closed, the surgeon learned that the health officer was right and that he was wrong. It is a fact we have not found the germ of smallpox. But we are treating it intelligently and we are getting it out of the country. Neither have we found the cause of ozena, but perhaps this operation is going to cure it, at any rate it seems to be improving the patient's condition.

Dr. Yerger said this operation should be applied to every case of ozena. I do not believe it. You know several years ago it was said that the sinuses were the sole cause of ozena. That theory has been exploded. Dr. Schoolman tells us that Wittmaack has found disease in the ethmoids which he thought was the cause of ozena and there is no question in my opinion but what he is right. Dr. Schoolman has intimated that this is the only operation. I think he has left out some of the newer ones. He has done as Dr. Wittmaack and others have done, removed the lateral wall. It seems to me that that is all a matter of experience and technique of how to do the operation. For instance, if you remove the lachrymal sac and at the same operation you could treat the maxillary sinus you will benefit the ozena if either of these structures are the cause of the disease. We should not be too over-enthusiastic about this operation. Five or ten years from now we will be better able to judge what this operation will do for ozena. Dr. Beck has an operation and he has told us about it. Younger has just written a paper on the sugar treatment. We will do great work when we are able to bring these people to good health and remove the cause of their trouble.

Dr. Joseph Beck, Chicago: We have treated syphilis for a long time without knowing the cause and I do not see how we should desist from treating a disease like this because we do not know the cause.

I think we are indebted to Dr. Schoolman for bringing this operation before us. Experience is the best thing to talk about when you are talking about treating anything. You do not have to cure people but to relieve them of the prominent symptoms in atrophic rhinitis in order to accomplish some good. That is what any operation will help to do, to narrow the enlarged spaces in the nose.

A sad commentary I have to make on his presentation. Has not this country done anything in attempting to relieve atrophic rhinitis? You know the American Laryngological Society has appointed a commission to study the ozena problem. It takes time to do this. Egblaw some years ago did an operation through the palate by making a hole in the hard palate. Barrady injected silver into the nose for the cure of atrophic rhinitis. Several Englishmen have used foreign substances in the nose.

The operation I have followed is to do a dissection of the mucous membrane of the septum, bring it over and put in a piece of the septum from another patient. It is a very simple procedure and you will be surprised at the result. I have tried it not once or twice but a dozen times. In not a single one did I have the synechia proposition to deal with. You do not push over the lateral wall, you push over the anterior wall. You have a triangular cut and only the anterior wall is pushed over. It does some good and these people have been very much benefited. In one case I tried this experiment, I separated the scar and put a piece of silkworm suture through the lateral wall and then brought it through the displaced lateral wall and tied it.

Dr. Schoolman is to be encouraged to go on with this work and bring us the end-results after sufficient time has elapsed.

Dr. N. Schoolman, Chicago (closing the discussion): This operation that has been mentioned is typical of those efforts that lend themselves to narrowing of the nasal chamber and the advantages of this method have been enumerated. It does away with preliminary operations for the procurement of material. It does not involve the introduction of foreign substances under the mucosa and, above all, this operation lays open the antrum of Highmore for inspection and treatment, whereas all other procedures merely accomplish a narrowing of the nasal chamber.

PNEUMOCONIOSIS

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CHICAGO

Pneumoconiosis has been defined (Anders Practice of Medicine, 1904), as being a "form of interstitial pneumonia that arises from the inhalation of dust-like particles;" also, as a "disseminated fibrosis of the lungs caused by the habitual inhalation of a dust-laden atmosphere in the various occupations;" (Wilson's Medical Diagnosis, 1909).

I should prefer to say that pneumoconiosis is a condition of the lungs characterized by more or less intensive deposit of organic or inorganic dusts, in the lung tissues, and accompanied by fibrous degeneration and consequent diminution of aerating ability of the organs involved.

The word "irritation" has also been used in the discussion of the definition; when one remembers that this disease, or process, can go on for ten, even twenty years, before producing serious incapacity, the grade of the irritation will be seen to be of low power in a large number of cases.

Depending upon the kind of dust inhaled by

the individual, pneumoconiosis is known by various names. We may mention anthracosis, due to coal dust; siderosis, due to iron oxide; chalicosis, caused by stone dust, and silicosis, due to the inhalation of silica dust.

All dusts are not alike in their ability to do damage; some, organic in character, cause but temporary irritation and are, in the long run, innocuous. Other dusts, mineral and metallic, and having hard, sharp corners, produce changes of a permanent and chronic nature. Such dusts, when they have passed the lymph canals, remain in the interstitial tissues of the lungs as deposits of foreign substance; as such, they cause fibrosis and, as their quantity increases, reduce directly the aerating surface of the lungs. The tolerance of the tissues for the dust is in direct ratio to the irritative quality of the latter. Silica dust is the most dangerous of the dusts; it is encountered chiefly in sand works, sand blasts and in some grinding occupations. Metallic dust, as in iron filings, is slower in producing its deleterious effects, while cement dust, a mineral, is said to be relatively innocuous. Coal dust has also been acquitted of being very harmful, although it will, it is true, fill a lung if given time. Possibly one reason why coal dust is rated so low in the mortality of miners, is that the accident rate among such workers is very high; hence, they do not live long enough to become far advanced anthracotics.

Dust need not be inhaled in order to produce pneumoconiosis; ingestion will serve the purpose equally well. The wet grinder, who is splattered with the finely comminuted mixture of grindstone, steel and water, gets much of the impalpable mud into his nostrils and mouth; later, when he eats his lunch, he does not trouble to wash his hands, which are dirt laden; thus, he soon soils his food which carries the dirt and grit into his interior.

The iron worker, machinist, lathe operator, tool maker, etc., have little dust to deal with, but instead, ingest their share of dirt, mixed with oil. The wet grinder, above mentioned, lasts about ten years at his trade. He may, in rare instances, hold out for twelve years, but not longer. The sandblaster has been known to succumb inside of three years. The dry grinder of Sheffield never lived to see his grandchildren, as he always died of "grinder's consumption" be-

fore his own children grew up. Not to be forgotten is that others than indoor workers may be subject to dust deposits in the lungs. The farmer, the prototype of the outdoor man, has his share of dust. Plowing and cultivating may, on occasion, be very dusty occupations, not mentioning threshing and mowing hay. Hence, the farmer, the man of the open, often finds himself compelled to retire at an age when the city dweller, in all of his smoke and dirt, is still working steadily. A study of our ex-farmer citizens of our rural towns might be enlightening.

Directly as dust is deposited in the alveolar and interstitial spaces, lung capacity is reduced. Finally, the lung becomes so filled that it can no longer meet the demands of exercise. Shortness of breath on exertion teaches the patient that he cannot move rapidly: therefore, he moves slowly. Towards the last there remains but a small portion of the lung tissue which is capable of aeration. Usually this bit of parenchyma is put out of action by a brief pneumonia.

At autopsy, the lung is found to be very heavy and not compressible. This is because of the large dust content which will be found in the organ. Adhesions between the lungs and chest walls are common. On section, the knife is felt to cut through a gritty mass, and one can recognize that mineral substance is being encountered. The volume of the lung is greater than in the normal organ. The cut surface of the lung is dark grayish, except, perhaps, where the knife has cut across the very limited patch of normal tissue; this I call "normal" because it is not filled with mineral dust, although it may be, otherwise, also pathological. In two cases of mine which came to autopsy, the finger-wide portion of uninfiltreated lung was found to be in the stage of red hepatization of an acute and short pneumonia. Both patients, after having been confined to their beds for many weeks, had quickly died of this disease.

As in all case studies, a consideration of the history of the disease will often give a clue to the true condition. *Occupation* should invariably be included in the history taking. It is, I believe, a matter of great importance that the physician have a knowledge, moderate, at least, of the processes of manufacture and trade in his community. Possessed of such information, he can the more readily understand the conditions

under which his patient is working, particularly, when they are of an unfavorable nature.

For the first few years there is nothing to direct attention to the fact that the lungs are filling with dust; but, as the dust begins to encroach more and more on the healthy tissues, the patient becomes dyspneic on exertion. He walks in a deliberate manner, and, in a word, slows down. Finally he is unable to work without distress—and stops. It may now be recognized that the man's working days are over, except, perhaps, for a light job, for the short



Fig. 1. Case 1 (3438)

balance of his life. Sometimes the condition of the man is misunderstood, and he is classed as a malingerer. There may be slight cough, or there may be attacks of paroxysmal coughing which give color to the diagnosis of "asthma." On the whole, the cough will depend less upon the amount of dust in the chest than upon the

secondary disease which is present. There may be a severe or a mild bronchitis, pleurisy or tuberculosis, any one of which will give rise to definite symptoms of pulmonary disease, which calls attention to the chest, while the pneumoconiosis, of itself, may have attracted little notice.

The sputum varies according to the characteristics of the dominant condition; it may be scanty, profuse, mucous or muco-purulent. From the appearance of the sputum, it is difficult to draw conclusions; a glairy sputum may

with the large chest. The antero-posterior diameter is greatly increased, the costal arch flattened to correspond to the flattening of the diaphragm, which is no longer able to assume its concavo-convex position of repose. This, of course, because the lungs are permanently dilated. As the ribs move slightly, if at all, breathing is abdominal. However, as the flattened diaphragm cannot contract further, respirations are shallow. Because of this, a slight cyanosis may sometimes be observed. Dyspnea is not present unless the patient tries to exercise



Fig. 2. Case 1 (3438)

contain tubercle bacilli, while a heavy sputum may be negative to this organism. Again, in the absence of chest findings, other than diminished breath sounds, there may be profuse catarrh with a generous bacterial flora. Where there are plentiful signs of lung pathology in evidence, there is always profuse sputum.

Hemorrhage is not a common symptom of pneumoconiosis; when present, it occurs usually as the consequence of a complicating tuberculosis.

Physical examination: We are first struck

beyond his limit. This limit depends upon the amount of aerating tissue remaining to the patient. Should there be respiratory distress, it is usually due to exercise, as above stated, and can be relieved by immediate rest.

Not often are the veins of the chest enlarged, and when they are so, it does not especially indicate a pneumoconiotic state. One is struck with the smallness of the arms as compared with the large deep chest. The musculature of arms and chest is soft and often flabby; the hands are usually cyanotic to a greater or less degree, the

interosseal spaces frequently wasted. The nails present a striated appearance at times and are usually curved, *not* clubbed; they are, however, often spatulate. The veins of the dorsum of the hands may be thin, and usually are so. They are, also, often tortuous and dilated. They are frequently especially prominent, probably because of the interference with the return blood flow, but are always quite compressible.

The supra and infra-clavicular spaces are deepened according to the stage of the disease. This should be a point in the differentiation between pneumoconiosis and emphysema, as in the latter disease the supra-clavicular spaces are puffy, rather than depressed.

When viewed from the side, the head is seen to be placed midway between back and front. This is due to the enlargement of the chest from front to back, together with the forward curving of the spine. The scapulae are seen to have moved well to the front, sometimes as far as the posterior axillary line.

Percussion. The note is a complex one. On light percussion, it is dull; with the heavier stroke, a tympany is elicited. As in other diseases, the percussion note is influenced by the thickness of the overlying musculature. Usually, the dullness is less marked as we approach the bases of the lungs. The better resonance observed here corresponds, perhaps, to the amount of fairly normal lung tissue still present. Over the heart, the dull tympany may be found to the exclusion of the normal heart dullness.

Auscultation. The principal characteristic of auscultation of the pneumoconiotic chest is in the diminution of respiratory sounds. Even rales are often absent; absent, too, when there is present other disease of the lungs, as tuberculosis. This does not mean that rales are not to be heard in these cases, but that tuberculosis may be present as a super-imposed disease, and yet offer no catarrhal signs. Here, the diagnosis of pneumoconiosis may be made on the general physical findings, while that of tuberculosis must be made under the microscope.

Usually, when tuberculosis is present, it is recognized only after considerable damage has been done to the lung by the breaking down action of the tubercle bacillus. In many cases, the patient works so long before seeking medical aid that cavital signs are well pronounced; in-

deed, the observer will be astonished to note the extent of the lesion when the history of recent disability is considered. Should there be any doubt as to the nature of the trouble, one will, perhaps, be aided by remembering that tuberculosis is usually found less developed on one side than on the other. At the same time, signs of pneumoconiosis may be in evidence on both sides. In such a case the quest for the tubercle bacillus is rarely unsuccessful.

X-Ray. One is struck, at first, with the width



Fig. 3. Case 2 (3442)

of the intercostal spaces. In this connection will be noted, likewise, the nearly horizontal position of the ribs; also the widening of the costal arch. The flattened diaphragm next claims attention, together with the increase of the lateral diameter of the chest. Probably of much more importance in the diagnosis is the mottled appearance of the lungs. This *mottling*

(called "snow storm" by some) is a constant occurrence in our cases. In addition, of course, will be seen the shadows due to tuberculous deposit, caverns and effusions. Whatever clear, or fairly clear, areas there are on the plate will be found in the lower parts of the lungs. The mottling will be seen to be quite evenly distributed.

Treatment. Rest is the only treatment of moment. In case of uncertainty as to the diagnosis between tuberculosis and pneumoconiosis, put the patient to bed; the treatment is the same in both diseases. If it transpire that no

workers, above all, will do more good in eradicating this disease than any amount of therapeutic endeavor after the lung has become clogged with dust. No amount of effort on the part of employers will avail unless the employes are willing to co-operate. In the rush to get out a greater amount of piece work, the operator of a machine not infrequently disregards the safety devices installed for his protection; they hinder his effort at haste, so he takes the risk. So, in the disease under discussion, blowers and the free use of water on grinding machines protect during working hours, but



Fig. 4. Case 2 (3442)

tuberculosis is present, the patient may be permitted to rise during the day. He must avoid all unnecessary exercise, as climbing stairs, walking in the wind and carrying burdens. Such effort is as productive of dyspnea as a bad heart; the latter stops in the effort of exertion while the dust laden lung merely stops its possessor. After all, prophylaxis is better than treatment, as regards any disease, and as regards pneumoconiosis particularly. Cleanliness in workshops, dust removing devices and education of the

cannot be of use during meal hours when the employe eats hastily without thought to his dirty hands.

Prognosis. This is invariably bad. The patient never clears his lung, hence, he never recovers. He never improves to the extent that he puts more lung back into use; lost lung is forever lost. With care, the pneumoconiotic may live a few years longer, according to the condition of his lungs at the time he stopped work.

The observations above noted are based upon cases selected from wet grinders, molders, machinists, tool-makers and other workers in metal. We have had no experience among miners, potters, cement workers or textile operatives.

Case 1 (3438). P. K. S., admitted to Chicago Fresh Air Hospital February 8, 1923. Male, age 42 years, Polish, married. Had been employed as molder for 22 years. Stopped work two months previous to admission because of pain in right side and cough. Weight 121 pounds, temperature average 98/6, pulse 72. During his stay in the hospital of over thirteen months the patient never had a positive sputum. His weight increased to and remained at about 131 pounds. Cough disappeared and sputum became scanty. While patient never complained of dyspnea on moderate exertion, it was observed that he never hurried; his movements were always deliberate.

Physical examination: Chest barrel shaped; retractions above and below the clavicles; scoliosis of lesser degree with definite kyphosis from the 7th to the 10th dorsal vertebrae. Dullness over the right scapula and below it. The general tone in front was one of dull tympany. Over the 2d and 3d spaces, front, there was a faint rough respiration; elsewhere the respiratory sounds were very faint or almost absent. On the right side there was an occasional click, but no other adventitious sounds. The patient remained in the hospital for over 13 months and had no change of picture as far as his physical findings were concerned.

Attention is directed to his photo (Fig. 1). The chest is seen to be quite deep, while the head is shifted forward, so that it is nearer the front than it should be. The hands are seen to be somewhat wasted and cyanotic. The skiagraph (Fig. 2) shows the mottling above referred to; this is more marked on the right side than on the left.

Case 2. ("D-L-K"-3442.) Admitted to Fresh Air Hospital Feb. 15, 1923. Age 30. Foundry worker 10 years; formerly furnaceman. Stopped work at 2½ months previously, because of "infection of hip." Temperature was normal during entire stay in hospital, the pulse likewise. Weight on admission was 136 pounds. On discharge, 163 pounds. Sputum on admission was positive, Gaffky, III. Also was it positive on discharge.

Physical examination showed demonstrable tuberculous lesion in the left apex. The antero-posterior diameter of the chest was considerably increased; motion retarded on the left side; retractions supra- and infra-clavicular, both sides. A diagnosis of pneumoconiosis with tuberculosis superimposed was made. A study of the photograph (Fig. 3) may be of interest. To be seen are the depressions above the clavicle, quite marked, the wasting of the forearm and hand, the curving of the nails, the cyanosis of the hands and the depth of chest. The skia-

graph (Fig. 4) shows the mottling above referred to, while the tuberculous lesion is seen in the upper left lobe.

The photograph of Case 3 (L. S. 3412) (Fig. 5) is shown in order to emphasize the appearance of the hands and forearms; these are seen to be cyanosed and, to a certain extent, wasted. The head is placed midway between the back and chest, while the wasting and tension of the trapezius and the sterno-cleido-mastoid are easily noted.

The picture of Case 4 (A. W. 3322) (Fig. 6) shows also some of these characteristics, as the depth

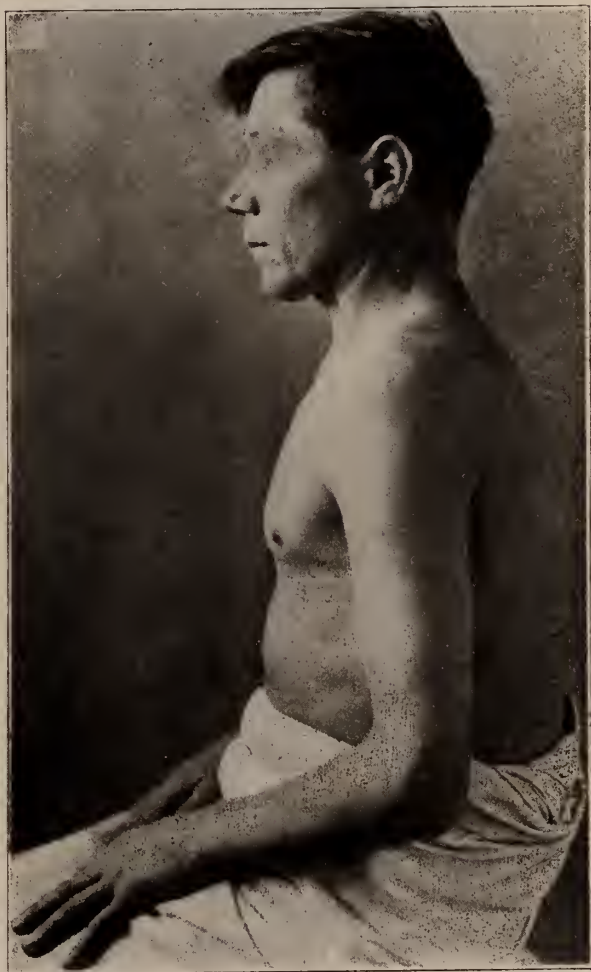


Fig. 5. Case 3 (3412)

of chest and the placing of the head. This case was characterized by great increase in weight, as is evidenced by the amount of adipose. There was here a lesion, tuberculous in character, of moderate extent. The sputum was positive.

There are several other cases in this series, but their presentation would be repetition; they are, therefore, omitted.

Comment: If one will bear in mind that a history of occupation in one of the dusty trades

may be an important clue to a diagnosis, these cases will be the more easily recognized. It certainly behooves the physician practicing in a manufacturing community to know something of the processes of manufacture; at any rate, as far as it concerns the health of the individual. In the diagnosis of pneumoconiosis, as in other chest conditions, what is not heard is often of

are recognized, the scant space given in the average text-book to this subject will mean more to the reader who now barely remembers the name "pneumoconiosis."

438 Briar Place.

FOUR UNUSUAL ABDOMINAL SURGICAL CONDITIONS: EMBOLISM OF THE MESENTERIC ARTERIES, MUOCOCELE OF THE APPENDIX, MESENTERIC CYSTS, AND TORSION OF THE GREAT OMENTUM*

CLIFFORD U. COLLINS, M. D.

PEORIA, ILLINOIS

In a paper presented to the Iowa State Medical Society in May, 1923, Dr. M. L. Harris,¹ in discussing the diagnosis of some surgical conditions, laid down three fundamental factors in the making of a correct diagnosis. 1. The ability on the part of the attendant to observe or recognize evidence. 2. A thorough knowledge of the pathological conditions that may give rise to the evidence observed. 3. The ability to correctly evaluate evidence.

The second factor is my excuse for bringing my subject to your attention this afternoon. "A thorough knowledge of the pathological conditions which may give rise to the evidence observed."

In the last few years the literature has been filled with articles on appendicitis, gall-bladder disease and abnormal conditions of the stomach until you are familiar with the usual diseased conditions of these organs. It seemed to me that it might be a good time to consider some of the unusual abdominal surgical conditions, and put them before our minds, so that we could consider them if we had a patient who was complaining of symptoms that might be caused by any one of them.

The first condition discussed will be *emboli of the mesenteric arteries*. In a surgical practice of twenty years, and an experience covering considerably more than ten thousand operations the writer has seen this condition only twice, and strange to say, these two cases were seen within a period of six months. Although it is rare, it is one of the most serious of abdominal conditions. It is important to study because it forms a clinical picture very difficult to diagnose, and yet

*Read before the Mercer County Medical Society at Alledo, April 15, 1924.



Fig. 6. Case 4 (3322)

as much, if not more importance than what is heard. Because, however, of ignoring what is not heard, many a chest is classed as "negative," when the very absence of "signs" is the real diagnostic point. Here, when the patient complains of shortness of breath, and, perhaps, some cough, nothing is heard in the chest, except faint sounds of respiration; this should give warning, in the light of the history. There is, undoubtedly, in the trades, more of pneumoconiosis than is suspected. When more cases

an early diagnosis followed by a prompt surgical operation offers practically the only hope of relief. Jackson, Porter and Quinby² of Boston gave a report of cases in 1904 that is still a classic on the subject. The condition of embolism of a mesenteric artery presupposes as a cause one of those diseases which leads to the formation of thrombi from whence emboli can arise. Endocarditis ranks first in the frequency of such diseases, followed by atheroma of the aorta, and arterio-sclerosis, especially of the mesenteric artery. Eliot³ points out, however, in a very considerable proportion of cases there is no history of previous illness and no discoverable cause.

The cases reported fall naturally into two groups, acute and chronic. The group of acute cases is by far the larger. The two cases observed by me were acute. In those cases there is a sudden onset of acute colicky abdominal pain, often when the patient is apparently in good health. Then comes nausea, vomiting, often bloody, and diarrhea, also often bloody. Or the picture is one of obstinate intestinal obstruction of the paralytic type. Often no flatus is passed and the temperature falls below normal. The abdomen finally become distended and death occurs in a few hours or days.

The second or smaller group of chronic cases is formed by those cases of insidious onset and chronic, sometimes remitting symptoms, by cases giving no symptoms referable to the abdomen during life, and by cases where a spontaneous cure results, probably by anastomosing vessels taking up the work of the blocked vessels.

Jackson, Porter and Quinby reported 214 cases culled from the literature and five cases presented no symptoms referable to the abdomen. All the others had pain in the abdomen and 157 could locate the pain. Nausea and vomiting were usually present following the pain. The vomitus was normal stomach contents, bile stained, fecal or bloody, according to the location, severity and duration of the process.

Some German authors claim that bloody stools are essential to a diagnosis but this is not true, although blood occurred in the stools sometimes in the course of the disease in 41 per cent of the cases. There are usually liquid or semi-liquid bowel movements in the early stages of the condition. Sometimes paralysis of the bowels comes

on so quickly that these liquid contents do not get out of the lower bowel.

A large majority (70 per cent) of the patients complained of tenderness on pressure over the abdomen, and a great many patients could locate the tenderness. Intestinal obstruction occurred rapidly in most of the cases, but distention was a late condition.

Five factors should be considered in making the diagnosis.

1. There must be a source of the embolus.
2. There are present, usually, copious bloody bowel movements.
3. There is a quick and marked fall of bodily temperature.
4. There are colicky abdominal pains which are usually very severe.
5. In the later stages distention of the abdomen occurs and free fluid.

Case No. 4524. The first case of this trouble seen by the writer was on Dec. 6, 1915.

The patient, A. S., was a male, aged 44. There was nothing interesting or unusual in his family or previous history, except that in March, 1915, he had an acute attack of appendicitis in which the temperature reached 102.8° and he was confined to his bed five days. Three week later he was taken again with pain in the right lower abdomen, vomiting and developed a temperature of 99.4°. An appendectomy was done by the writer six hours after the beginning of this last attack. The condition of the appendix justified the diagnosis and operation. His recovery was uneventful and he remained well until December 5, 1915.

On December 4 he seemed perfectly well and shocked corn as usual. December 5, being Sunday, he did not work, but ate a hearty dinner at noon. At 1 p. m. he complained of a sharp acute pain in the abdomen just below the navel, but walked two miles to visit a neighbor with whom he spent the afternoon. In the evening he refused to eat supper and complained of pain in the lower abdomen. He took some peppermint and went to bed. The pains grew worse in severity and at 9 p. m. Dr. W. A. Gott of Washington, Illinois, the family physician, was called to see him. He was given physic and a hypodermic of morphin, and in a short time he seemed to be all right. After a few hours rest the pain returned and Dr. Gott was called at 1 a. m., December 6. His bowels had not moved so he was given a large dose of salts and another hypodermic of morphin. Dr. Gott called again about 8 a. m. and found that the patient had had no bowel movement. However, while the doctor was there he passed a large watery stool and at the same time vomited a large quantity of brownish fluid with a bad odor. He said he felt much better then and Dr. Gott gave a colonic flushing which brought away more liquid fecal matter. At noon Dr. Gott received a telephone message that the patient

had been comfortable until 11:30 a. m. when he complained that the pain had returned. Dr. Gott called Dr. Geo. W. Parker and the writer in counsel. The patient's lower abdomen was distended when Dr. Gott reached him. He was restless and pale and his heart's action was very weak. He complained of heavy severe bearing down pains in the lower abdomen. He died at 1:00 p. m. just twenty-four hours from the beginning of the attack.

He had vomited only once during the attack, at 8:00 a. m. His temperature was normal, pulse 84, at that time. From then on till his death the temperature did not rise, but his pulse became weaker and increased in rapidity.

The internist and surgeon called in counsel arrived fifteen minutes after his death. On account of the lack of accurate information as to the cause of death, and the suddenness with which it occurred, we asked for a postmortem examination. At first, this was refused by the family, but when it was ascertained that the deceased had insurance, and it was explained that the insurance companies would probably require a satisfactory cause for the death, they gave their consent to a brief examination to determine the cause.

An incision through the abdominal wall allowed the escape of a large quantity of bloody fluid. Nothing abnormal was found in the upper abdomen. A loop of small intestine, which was about eighteen inches long and black and gangrenous, was pulled up easily out of the pelvis. The line of demarkation was sharp and abrupt. The gangrenous loop was three or four feet from the cecum. The intestine for some distance above the gangrenous portion was congested, thickened, soft and boggy, and felt like coils of sausage.

Case No. 5036. The second patient was P. S., aged 34. On April 6, 1916, he took with pain in his legs, and the pain spread all over his body. He went to see his physician, Dr. J. D. Milligan of San Jose, Illinois, who found his temperature 101°, and put him to bed. He remained in bed two weeks. His temperature went to normal after two weeks and remained normal for a week. His pain left him also at the end of two weeks. After a week's remission his temperature came back to 101° and twelve hours later to 103°. Then his fever declined. During this time he had no particular pain.

On the night of April 27, his temperature rose to 101° and he took with a gradually increasing pain in the central abdomen around the umbilicus. The pain was sharp, colicky, and very severe and required an opiate. He did not vomit except once on the night of April 28, after he had been given castor oil.

He was brought to the hospital on April 29. He complained of pain in the central abdomen in spite of opiates that had been administered. There was no tenderness over any particular portion of the abdomen. The abdominal muscles were not rigid. The leucocyte count was 36,000. There was an icteroid tinge in his conjunctivae. There was perspiration

about his temporal and frontal regions. His lungs were resonant. His apex beat was diffuse and over the second pulmonic area there was a marked systolic murmur which was also heard over the aortic area. He complained of severe pain in his central abdomen just below his umbilicus. There was no edema of the feet and ankles. His spleen was not palpable, and there was no tenderness over either kidney region. The urine examination was negative and his hemoglobin 90 per cent.

On April 30, his abdominal muscles were still flaccid and there was no tenderness over his abdomen. Temperature 100 degrees, pulse 118. The pain was still severe and required morphin every three hours. A diagnosis of occlusion of a mesenteric vessel was made and an exploratory incision advised which was accepted. No credit is claimed for the diagnosis. If the first case had not been seen in December, 1915, the correct diagnosis would probably not have been made.

When the peritoneum was incised numerous coils of small intestine were seen with gangrenous areas in them. The areas varied in size from one inch to six inches. The areas were separated by normally appearing intestines and the areas extended from the jejunum to the colon. Evidently there had been numerous septic emboli in the superior mesenteric artery, presumably from the heart. It was obviously impossible to do anything so the intestines were replaced and the incision closed. He died eight hours later.

It is well to remember that most of the cases (64 per cent) occur in males, and more than half between the ages of 30 and 60. Both of these patients were males and both between the ages of 30 and 60.

The diagnosis must be made early, if the patient is to be relieved by surgical treatment. My first patient died in just twenty-four hours from the beginning of the symptoms. However, it is not necessary for the family physician to diagnose the exact lesion. As Kanavel⁴ has pointed out, it will be sufficient if the physician recognizes a surgical condition and acts promptly. If there has been only one embolus and there is one gangrenous area, resection may save the life of the patient.

The prognosis is very grave as it is a very fatal condition. The mortality is about 94 per cent. The reason for this is plain. If there are multiple infarcts, or infarcts in the descending colon or sigmoid, or extensive infarcts with no well-defined line of demarcation very little can be done by surgical means.

The treatment is an early exploratory incision. If there has been only one embolus and

the gangrenous area is limited, a resection well beyond the seeming line of demarcation should be done, and the open ends of the gut left in the incision surrounded by gauze pack. This is recommended by Jackson, Porter and Quinby, although Eliot advises immediate anastomosis if the patient's condition seems good. The escape of bloody fluid when the incision is made should make the surgeon think of mesenteric embolus as a possible cause for the trouble. It should be remembered that the gangrenous loop of intestine is more frequently found in the pelvis than any other place. Unfortunately, as in my second case, there are generally multiple emboli, and the numerous and extensive gangrenous areas destroy all hope of accomplishing anything.

The second condition we will discuss is a *mucocoele of the appendix*. A mucocoele of the appendix is interesting because of the enormous size of such a diseased appendix, and because, if the appendix leaks and pseudo-mucin escapes, the condition of pseudomyxoma peritonei may result. An excellent discussion of this disease has been written by Dr. Major Seelig⁵. Pseudomyxoma peritonei is usually caused by the escape of pseudo-mucin from an ovarian cyst in a woman, or from a mucocoele of the appendix in a man. My case of mucocoele of the appendix was unique in being in a woman.

Case No. 8082. The patient, Mrs. H. F. S., was 46 years old. She was referred by Dr. Wm. Major and was seen on Feb. 13, 1921. For about three years she had had a constant soreness in the right lower abdomen. Just before she menstruated the pain was always worse and more severe. About a year before she was referred to the writer she thought she could feel an enlargement in the right lower abdomen. A few weeks before the enlargement had become more apparent and was freely movable.

A mass could be felt in the right lower abdomen, three or four inches in diameter, but it could not be pushed down so the index finger in the vagina could palpate it. For that reason there was some suspicion about its being an ovarian cyst, but it was not known what else it could be, so that wrong diagnosis was made. The removal of the mass was advised and accepted, and the operation was done on Feb. 14, 1921.

The incision revealed an enormous appendix twisted like a corkscrew. (See Fig. 1.) A small quantity of pseudo-mucin was found outside of the appendix, but it was removed. Fortunately the lumen at the base of the appendix was of normal

size, so the thickened tissue around it was incised to the mucous membrane. The mucous membrane was ligated and cut, and the stump was covered with Lembert sutures of linen thread. Some gall stones were found in the gall-bladder and the gall-

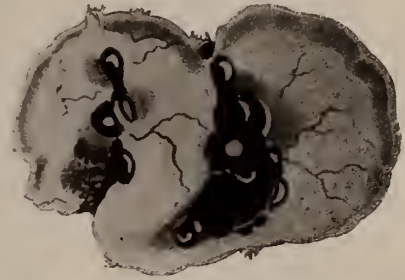


Fig. 1. Mucocoele of the appendix. Some pseudo-mucin may be seen attached to the appendix.

bladder was removed on Feb. 9, 1922. On Feb. 19, 1923, the patient reported that she felt well.

The third condition is *mesenteric cysts of the intestine*⁶. Mesenteric cysts are very rare. Lawson Tait is said never to have seen one. About 200 only have been recorded in the literature. Mesenteric cysts are classified under six divisions.

1. Serous.
2. Chylous.
3. Hydatid, due to tenia echinococcus.
4. Blood cysts.
5. Dermoid (embryonic).
6. Cystic malignant disease.

Serous cysts, either unilocular or multilocular, usually but not always contain a clear fluid, and are supposed to arise from dilated lymph channels or from hemorrhages between the layers of the mesentery. The diagnosis is difficult. They are usually not discovered until acute inflammation, obstruction of the bowels or torsion of the mesentery occurs bringing about an acute condition. The writer has seen one case of a multilocular cyst of the mesentery which produced obstruction of the bowels before it was discovered. It was not diagnosed before operation.

Case No. 8023. The patient B. C. was a boy three and one-half years old, and was referred by Dr. E. B. Packer of Toulon. He was seen on January 12, 1921. Two nights before I saw him he cried with pain in his abdomen, and his little sister said, "A knot raised up in his stomach." His mother felt a hard lump in his abdomen the next morning. He was nauseated but did not vomit. He was given a physic and his bowels moved well on Jan. 11.

He was brought to the St. Francis Hospital on

Jan. 12. He vomited twice that day but had passed no bloody mucus. His mother said the lump was no larger than when she first felt it the day before. The abdominal muscles were not rigid but a hard tumor could be plainly felt in the central and left abdomen. This mass was four or five inches in diameter. The urinalysis was negative. His temperature was 101 degrees, pulse 120. Although there had been no bloody mucus passed per rectum, a tentative diagnosis of intussusception was made. The true condition did not occur to the mind of the examiner.

The operation revealed a bluish irregular shaped mass about five inches in diameter in the left abdomen. It was obvious that the tumor had been there some time before it was discovered. When it was delivered through the incision it was seen to be a collection of cysts at the outer border of the mesentery of the ileum, and almost surrounding and obstructing the bowel. The intestine proximal to the mass was distended, and that distal to the mass was collapsed. (See Fig. 2.) One cyst was ruptured



Fig. 2. Mesenteric cysts obstructing the small intestine.

in removing it and a dark cloudy fluid escaped. The cysts were removed without resecting the bowel. The little fellow made an uneventful recovery.

The fourth condition to which attention is called is *intraabdominal torsion of the great omentum*⁷. In 1907 only sixty-six cases of torsion of the omentum had been reported in the literature, and only seven of these recorded intra-abdominal torsion. There are three classes.

1. Torsion of the omentum within the abdominal cavity unaccompanied by hernia.

2. Torsion within a hernial sac.

3. Torsion not limited to a hernial sac, but extending into the abdomen, or where there is a twist in both the hernia and abdomen. My two cases are in the third group. By far the larger number of cases of intra-abdominal torsion are found accompanied by a hernia. One theory as to the cause is anatomical conditions. The veins are longer and more tortuous than the arteries, and it is thought that the arteries form straight cords around which the longer, congested veins twist.

Case No. 2173. The first case of torsion of the

omentum seen by the writer was M. D., aged 56, seen on April 15, 1910. He was referred by Dr. Wm. Cooley. He had had a hernia in the right groin from birth. He never wore a truss and it never got any larger. On April 9, he felt something give in the right groin all at once, and the right scrotum became larger and he felt pain in the right lower abdomen. He had no symptoms of bowel obstruction. He was in bed from April 9 to April 15 with a temperature of 99½ degrees, pulse 80.

There was a mass in the right scrotum which came out of the right external inguinal ring. A large mass could be felt occupying nearly all of the right abdomen. A diagnosis was made of strangulated right inguinal omental hernia, but I was not sure of just what was causing the mass in the right abdomen.

Gangrenous omentum was found in the sac, which was ligated and cut off at the internal ring, and the hernia was repaired. A right rectus incision was then made and the great omentum was found twisted several times from left to right. There was a narrow neck up close to the transverse colon, and the omentum was ligated there and the large mass cut off and removed. A large portion of the mass was black and gangrenous. His recovery was uneventful and he lived until 1924.

Case No. 9329. The second case was G. B., aged 42, and he was seen on Dec. 3, 1922. He had had a left inguinal hernia for several years, but it had never descended to the scrotum. On November 29, while lifting a heavy box, he felt something slip in his left groin. He began to have pain in his left groin. The pain grew worse and on Dec. 1 he began to have pain in his left abdomen. He vomited that day, but did not vomit after Dec. 1.

On Dec. 3, Dr. W. T. Trewyn was called and found an irreducible mass in the left scrotum. A large mass could be palpated in the left abdomen that almost completely filled it. This mass was flat on percussion. He was brought to the St. Francis Hospital where the findings of Dr. Trewyn were confirmed. The first case had not been forgotten, so when the mass was found in the left abdomen, which had only appeared within a few days, was flat on percussion, and was accompanied by a strangulated omental hernia, a diagnosis was made of strangulated left inguinal omental hernia with intra-abdominal torsion of the great omentum.

Gangrenous omentum was found in the sac. The abdomen was opened through the left rectus muscle and the great omentum was found twisted from left to right four or five times. It was attached by a narrow twisted pedicle to the colon, and this pedicle was ligated and cut and the large mass of gangrenous omentum removed. His recovery was uneventful.

A strangulated inguinal hernia, without symptoms of bowel obstruction, with a recent appearing large mass in the corresponding side of the abdomen, that is flat on percussion, is

almost surely a strangulated omental hernia with intra-abdominal torsion of the great omentum.

If the foregoing reports prove to be any aid to you in diagnosing any of your cases the writer will have been well repaid for presenting them.

REFERENCES

1. Harris, M. L.: The Diagnosis of Some Surgical Conditions. The Journal of the Iowa State Medical Society, November, 1923.
2. Jackson, Porter and Quinby: Mesenteric Embolism and Thrombosis. Jour. A. M. A., June 4, 1904.
3. Eliot, Ellsworth, Jr.: Mesenteric Thrombosis. Annals of Surgery, November, 1915.
4. Kanavel, A. B.: The Abdominal Crisis. Illinois Medical Journal, December, 1913.
5. Seelig, M. G.: Pseudomyxoma Peritonei in Male Subjects. Surg. Gyn. and Obstet., June, 1920.
6. Jones, E. G.: Cysts of the Mesentery. Surg. Gyn. and Obstet., July, 1915.
7. Fuller, Wm.: Intraabdominal Rotation of the Great Omentum. Surg. Gyn. and Obstet., August, 1908.

Society Proceedings

ADAMS COUNTY

The annual picnic of the Adams County Medical Society was held at the Big Lake Hunting and Fishing Club south of Quincy August 7, as the result of the courtesy of the members of that club, of which Dr. J. E. Miller is one. The dentists of Adams County were invited to join with us. It was an all day meeting, the members assembling in the morning and devoted their time to boating, fishing, barnyard golf, base ball and cards. A splendid chicken dinner was served. There was a total attendance of 44, including 29 members.

HAROLD SWANBERG, M. D.
Secretary.

COOK COUNTY

JOINT MEETING OF THE CHICAGO OPHTHALMOLOGICAL AND CHICAGO MEDICAL SOCIETIES

March 7, 1923.

DR. ROBERT VON DER HEYDT, President of Ophthalmological Society, in the Chair.
Cooperative Work Between Medical and Surgical Practitioners and Ophthalmologists.

DR. GEORGE E. DE SCHWEINITZ of Philadelphia, quoted von Graefe's expression when he first used the ophthalmoscope. "Von Helmholtz has unfolded a new world to us," and showed how with improved methods of technic, as well as with new instruments, the values of observation were greatly enhanced, and the importance of medical ophthalmoscopy elevated.

Tracing, very briefly, the advances which had been made in general medicine and general surgery during this period, he described how the so-called "specialties" (especially ophthalmology) had moved from a position of comparative isolation to one of closer affiliation with the methods of exact general diagnosis and therapy, and why it had become necessary for

general medicine, surgery, neurology, etc., to summon to their aid the advantages of ophthalmology and ophthalmoscopy.

After detailing some historic data as to the recognition of refractive anomalies of the eye, he spoke especially of Donders' work, and of the important observations of Weir Mitchell in association with William Thomson and Ezra Dyer, fifty years ago; which did so much to focus the attention of the profession on the enormous amount of evil of which such refractive errors were capable, and of how their correction had revolutionized the treatment of headache, many functional nervous diseases, gastric disturbances, etc.

He expressed the belief that this co-operation between internal medicine, neurology and ophthalmology, which resulted in Mitchell's proclamation fifty years ago, was the first potent stimulus in the movement of correlating special and general work.

Everywhere progress followed increasing specialism and cooperation; this was noticeable in all departments of varied activities, and must necessarily be so in medicine and surgery, the practice of which, in the widest acceptance of the term, was far too complex to be the task of any one man. He insisted, that as a foundation for so-called special medical and surgical work, general training was necessary, postgraduate work was essential, and a practical knowledge of fundamentals—atomy, physiology, pathology—of paramount importance. The foundation of successful therapeutic effort in complicated cases consisted in painstaking clinical examination, history records, exact research and cooperation.

Dr. de Schweinitz pointed out how frequently a local lesion, in the eye or elsewhere, was not an independent disease, but a local lesion; that is, one interpretation of a constitutional difficulty, or a general toxemia. Speaking of focal infections, he discussed briefly how the resistance of the part affected might be reduced by some other agency, and the localization of the germs thus determined. Such an agency might be chemical, physical, or depend upon a chronic infection, and examples illustrative of the influence of such agencies in these circumstances were given. He also discussed briefly the care which must be exercised in hunting for a focus of infection, but deprecated any tendency to sacrifice teeth, for instance, before expert examination had proven that extraction was necessary, and that in no other way could sterilization be obtained. He spoke of the dangers of exploration of the paranasal sinuses, and the responsibilities which rested upon those concerned in work of this character.

He concluded with the record of a number of case histories which illustrated the value of cooperative work between the family physician, internist, surgeon, oto-laryngologist, ophthalmologist and dental surgeon, and laid great stress on accurate history taking as an adjunct in all this work. A brief reference was made to those patients who had many times been examined, that is, those who had had frequent laboratory tests,

etc.; an endeavor should be made to utilize previous work as far as possible. He discussed the advantages of indicating "leads" in such cooperation, coming, as the case might be, from the general or the special standpoint; if such "lead" failed to bring the searcher to the cause, naturally others could be followed until the investigation was completed.

The essayist spoke of the advantages of consultation between the medical man and the ophthalmologist before certain remedies were employed in a given case, altho indicated by the cause of the malady. It was an easy matter, he urged, to find out from the practitioner whether in his experience such and such a remedy had been tried, and if so, what its results had been. Some rather startling unfavorable results after the administration of tuberculin were mentioned. The advantages of early recognition of vascular lesions in eyes was referred to, as well as the advantages in these circumstances of early treatment from the general standpoint.

DR. JOSEPH M. PATTON, speaking from the medical standpoint, felt that all physicians should take Dr. de Schweinitz's very able paper as a sort of criticism of their methods of handling some patients. He doubted if the average general practitioner would ever be able to make his ocular examinations for himself, and was convinced that much might be gained by the cooperation so strongly advocated. In the hospital, as a routine measure, there was cooperation with the oculist in all cases involving the diagnosis of intracranial conditions, blood dyscrasias, toxemias, and frequently of the cardiorenal disorders associated with hypertension. In private practice, this was often neglected, and in office practice, especially, the profession was open to criticism for failing to take advantage of the aid which the ophthalmologist could give.

He had for many years made it a practice to send his patients to a competent ophthalmologist whenever anything suggestive of involvement of the eye came up, so that he would know what the condition of the eye was and whether he was missing any of the symptomatology. There were sometimes symptoms in the eye premonitory to general symptoms in the patient's economy, and by this cooperation one could check up the course the therapeutic steps should take.

Endocrinology was in the transitional stage and probably overworked, but in many cases where the ductless glands were apparently at fault, much information could be obtained from careful examination of the eyes. He believed that an ophthalmologist should not give a definite opinion on any case without going thoroly into the history of the patient. The value of cooperation to the general practitioner lay in getting an opinion from a man who had knowledge of the eye and could correlate it with his general knowledge of the economy, but this aid has been neglected because the cooperative spirit had not been in force. The vascular relations should be studied in every case, and there was no place where changes were shown as early and as prominently as in the eyegrounds. He considered the paper not only timely but full of wise advice to the general practitioner.

DR. EDWARD JACKSON, of Denver, said that essentially the subject presented by the speaker of the evening was a question of cooperation, between those who had different experiences and different viewpoints; and cooperation was only possible under certain conditions. Two of these conditions appeared as essential. It had been emphasized that many ophthalmologists, general practitioners and surgeons who were good men did not appreciate that nimbus of professional knowledge that existed outside of their own experience, and it was possible to utilize this only through coordination of one's own experience with truths recognized by another man's intelligence. Coordination of individual experiences becomes possible through two things: First, a basis of common preparatory study, the basis of the general medical course that

all good specialists had gone through, which gave a common means of transmitting to each other the views that were often the most suggestive and valuable.

The other point that must not be lost sight of was the very practical point, that two men who had different training could cooperate fully only if they had the habit of cooperation. The personality of the consultant and the acquaintance of the two men played a great role in the matter. Consultation was the exchange of ideas of two independent thinkers and investigators, and it did not reach its highest possibilities until they had consulted many times and knew each other, as well as each knew his specialty.

An ophthalmologist would care for the opinion of a particular internist, or a particular surgeon. The general practitioner would have his favorite consultants; and to him the opinion of those particular tried friends, with whose intellectual processes he was familiar, was worth more than the opinion of the equally serious student with whom he was not familiar.

The matter of working together might be fostered by group practice. It had been fostered not only by the meeting of friends in consultation, but by the meeting of friends and exchanging of views when there was no patient present, and no consultation on any particular case. Many possibilities of cooperation among the different individuals of the profession were just now being apprehended and experimented with, and were still to be developed.

DR. GEORGE F. SUKER emphasized the need of bearing in mind the plain facts stated in the paper. He thought all were more or less guilty of neglect in taking advantage of available facts, and too hasty in making examinations and drawing conclusions. He believed one of the most important things was careful history taking, particularly among ophthalmologists, who were so likely to see the eye and nothing else. The eye should be looked upon only as a part of the general economy, and an effort made to find out what was the matter with the latter, and whether the individual part fitted in with the whole.

He always made it a point, to speak on the relation of the eye to general diseases in such a way, that the general practitioner might find some things of interest. The ophthalmologist must pay particular heed and attention to what the family physician, be he at the crossroads or in the city, had to say about the patient he referred. It was his knowledge, as the family physician, that oftentimes gave the clew necessary for the successful treatment, and the great thing was to be more fraternal in the correlation of the findings and views.

It was well for the general practitioner to attend the meetings of the ophthalmologists and much more necessary for the ophthalmologists to attend the general meetings. Dr. Suker was of the opinion that one could not at present treat any condition of the eyes, except perhaps the simple refractive errors, without taking into consideration the entire makeup of each individual patient, and no organ should be left out. Diagnosis made by exclusion was far better than diagnosis made by inclusion, and consultation would prevent jumping to conclusions, as the profession was so prone to do. A simple consultation, not necessarily with the patient present, oftentimes led to better thinking and analysis of the case. There was often opportunity to "talk shop" at luncheon, and this did much to harmonize the interests between the various specialists and to review many points that were lost sight of in an office practice.

DR. A. J. OCHSNER believed the ideas Dr. de Schweinitz had brought forward would be applied very much more commonly in the future, because the specialist in the future was going to be a doctor. If there was any one the general practitioner and the surgeon should fight shy of, it was the specialist who was not a doctor; but who became a specialist immediately upon leaving medical school, because specialism was easier and promised to be more profitable than the tedious general practice. The hospitals now made it possible for the recent graduate to spend several years in becoming thoroughly familiar with medicine in general before specializing. Throughout the address of Dr. de Schweinitz, it could be felt that he spoke not only as a specialist, but as a doctor.

DR. WILLIAM H. WILDER said that the address brought home the importance of cooperation in this age of specialties, and all could appreciate the truth of Dr. de Schweinitz's statement that there was a danger in specialism if the specialist had not the background of general training. The specialist had no contention against the general practitioner, or the general practitioner against the specialist, but unquestionably the specialist was frequently to blame for not seeking cooperation. It took the ophthalmologist a quarter of a century to convince the practitioner that such a thing as strain of the ciliary muscle of the eye might excite general headache, but finally he was convinced and sent many of his cases of headache to the specialist.

One now frequently saw the specialist engaged in the study of cases of headache to the discredit of the ophthalmologist, who frequently failed to differentiate the varieties of headache. He might see a case of migraine, typical or atypical, which he thought he could cure by a slight change of glasses. One frequently saw cases with slight change, in which the specialist failed to see that the case was out of his province.

On the other hand, he thought it essential to keep constantly before the general practitioner the necessity of seeking the aid of the ophthalmologist. It was well known that in certain conditions of intracranial pressure, the optic nervehead would show a condition that was choked disc. Where the result was a mechanical one, it was more an edema and not so much a neuritis. The practitioner, knowing this to be true, after getting a negative report from the ophthalmologist, would often be content to base his opinion on this, when he should know that the swelling of the optic disc might appear at any stage of the growth that was causing the intracranial pressure, and might not appear until a short time before the lethal termination of the case.

The general practitioner should never feel that one report was final. Repeated examinations were necessary, for when this important sign did appear it was of great value. Exchange of ideas between the practitioner and the thoughtful ophthalmologist was extremely valuable, and the speaker thought they should be very grateful to Dr. de Schweinitz for introducing the subject.

DR. DE SWEINITZ, in closing, said his object in bringing up what seemed to be a desultory array of facts, with which all were familiar, was to make a plea for the cooperative work, which had been described between the great major specialists, for the minor specialists which fitted into each other's work, so that the whole thing might be complete.

CLARENCE LOEB,
Corresponding Secretary.

PIKE COUNTY

The Pike County Medical Society met in Barry July 31, 1924, with twenty-nine physicians present, members and guests.

Letter of Dr. Whalen in reference to the commemoration of the "Diamond Jubilee" or seventy-fifth anniversary of the organization of the Illinois State Medical Society read and enthusiastically endorsed.

Dr. Audrea of the Pike County, Mo., Society took the floor and invited all members and guests to the big gathering and outing of that Society at Louisiana, Mo., in September.

Dr. Nickerson of Quincy, Past President of the State Society was called on and made an interesting address; the main thought was the comparison of the Medical Practice with that of fifty years ago. Dr. Pearce of Quincy invited the members and guests to the monthly meetings of the Adams Co. Society and Dr. Deal of Springfield invited all to the regular meetings of the Sangamon Co. Society: these gentlemen

being the Presidents of their respective societies. Dr. Harold Swanberg of Quincy tendered the Pike Co. Society space in the Quincy Medical Bulletin to use in lieu of a Bulletin of their own. This was accepted cordially by the Society.

Dr. H. C. Blankmeyer of Springfield read an up-to-the minute paper on "The Importance of a well-functioning Thyroid in early life." This was probably one of the best papers on the endocrines ever listened to by the members.

Dr. W. E. Shastid of Pittsfield read a paper on "China and Chinese Therapy."

Dr. Don Deal of Springfield next read a remarkably instructive paper on "Lung-Surgery;" this embodied the latest operative procedures and much original work along this line and Dr. Herman Cole, also of Springfield, discussed the subject brilliantly from the standpoint of medicine. Dr. Walter Bain also of Springfield was expected to take up the subject from the pathological standpoint but was unable to be present.

Dr. J. I. Doss of Milton was called away so he was unable to present his paper on "Dyspepsia."

Councilor H. P. Beirne, M. D., of Quincy, gave a very instructive and entertaining address on "Quartz and Photo Therapy." This also was discussed profitably by a member.

Dr. H. M. Camp of Monmouth, Secretary of the Illinois State Society, expected to be present and read a paper on "Observations" but was unable to be present because he had expected to fly from Monmouth to Barry and his pilot was soaring above the corn-fields of Iowa and did not get to Monmouth in time to take him up.

The Society adjourned at 5 P. M. after one of the largest and most profitable sessions in its history.

W. E. SHASTID,
Secretary.

Dr. C. J. Gose of Kinderhook was not well enough to read a paper, so he wrote the following poem for the occasion.

THE CHIROPRACTOR

If there's anything the matter
With your kidney, heart or lung—
Go see the Chiropractor;
Have your spinal column wrung.

He'll sublax all your joints
And remove the kinks and curves
From your neck and back and belly
When he traces out the nerves.

He will search your sylphian
For a bone that lops and slides
On a nerve that roams around
To the middle and both sides.

If you have a burning bunion,
Or your pep's a little slack;
The Chiroprac can fix it
By just feelin' of your back.

DR. C. J. GOSE,
Kinderhook, Ill.

Marriages

WARNER SMITH BUMP to Mrs. Ruth Smith Bevan, both of Chicago, July 22.

FRANK J. CHMELIK, Joliet, Ill., to Miss Georgiana Vonasek of Chicago, July 7.

OSMON C. CHURCH, Quincy, Ill., to Mrs. Mary Easterly, Ullin, Ill., July, 1924.

DONALD C. CONZETT, Chicago, to Miss Helen Jane Castleman of Elmhurst, Ill., at Chicago, June 10.

GEORGE J. MAUTZ to Bessie L. Grant, both of Springfield, Ill., July 11.

WILLIAM A. MICHAEL to Miss Garnet Groff, both of Peoria, Ill., June 7.

JOHN L. TAYLOR, Waukegan, Ill., to Mrs. Crystal Eaton of Libertyville, Ill., June 14.

A. MARTIN SWANSON, Rockford, Ill., to Miss Alice Bowman, Guilford, Ill., June 25.

HEMAN SPALDING to Miss Lagreta M. Dunn, both of Chicago, August 9, 1924.

ARTHUR SAUL SANDLER to Miss Reba Oster, both of Chicago, August 24.

CORWIN SPENCER MAYES, Springfield, Ill., to Miss Lola Raney of Rochester, July 28.

ELMER E. SEXTON, Carlinville, Ill., to Miss Katherine Homer of St. Louis, recently.

FREDERICK OSCAR TONNEY to Agnes Virginia Morin, August 16.

Personals

Dr. William H. Baker, Quincy, has been elected president of the city board of health.

Dr. Louis C. Taylor, Springfield, has been re-elected president of the Sangamon County Tuberculosis Sanitarium Board.

Drs. George F. and Gladys H. Dick have accepted an invitation to address the fifth annual conference of Ohio health commissioners at Columbus in November.

Dr. William S. Keister, director of the joint health activities of Charlottesville, Va., Albemarle County and the University of Virginia, has been appointed director of the health department of Decatur.

Dr. H. Gideon Wells, professor of pathology at the University of Chicago, addressed the Northern Minnesota Medical Association, Du-

luth, August 5, on "The Relation of Heredity to Cancer."

Dr. Truman W. Brophy was made an officer of the Legion of Honor of France by the president of the French republic, August 1. Dr. Brophy is en route to Luxemburg to attend a meeting of the International Society of Dentistry, of which he is president.

Ralph S. Lillie, Ph.D., of the Nela Research Laboratory, Cleveland, has been appointed professor of physiology, and William H. Taliaferro, Ph.D., of the Johns Hopkins University School of Hygiene and Public Health, Baltimore, associate professor in the department of hygiene and bacteriology at the University of Chicago.

News Notes

—The Burnham Hospital, Champaign, has been taken over by the city as the result of a recent vote.

—It is planned to erect a \$50,000 hospital building at Benton in the near future.

—Bids have been closed for the erection of a \$150,000 addition to the Wabash Railroad employees' hospital at Decatur.

—The Will County supervisors have approved plans for a county tuberculosis hospital that will cost \$125,000. Dr. Philip D. McGinnis, Joliet, is a member of the sanatorium board.

—The St. Clair County Tuberculosis Society has started a movement to establish a county tuberculosis hospital. Dr. C. S. Skaggs, Belleville, is a member of the committee in charge of preliminary arrangements, the first step being a presentation of this question to the people at an election for a bond issue.

—L. W. Yost, a chiropractor of Port Byron, has been arrested following the death from diphtheria of a lad by the name of Dale Dillin, Hinsdale, it is reported. Yost was charged with practicing medicine without a license and was released on \$500 bonds. It is said he treated this patient for several days by chiropractic methods before a physician was called. The chiropractor was also quarantined by the state health department.

—Wabash County has completed arrangements for creating a full-time health department on an

annual budget basis. A full-time medical director will be employed to assume charge of the work. This is the second county, the other being Crawford County, to establish a health unit by the co-operative efforts of the state, the federal government and the International Health Board of the Rockefeller Foundation.

—It is reported that a fifteen-story clubhouse for physicians and dentists, to be known as the Medical Arts Club, will be erected on Lake Shore Drive at Ontario street. The first ten stories will be built next spring, comprising an auditorium, banquet hall, grill room, library, ballroom and 100 sleeping rooms. The building will be the home of the Chicago Medical Society and the Chicago Dental Society.

—The U. S. Public Health Service has arranged to extend its relief work in South Chicago by the establishment of an outpatient relief station at 3018 East Ninety-first street. Merchant seamen from the vessels docking in that vicinity will now be able, when sick or injured, to secure medical relief. Patients needing hospital care will be sent to the Marine Hospital, 4141 Clarendon avenue, under which the new station will operate as a branch.

—The old Rush Medical College building at Harrison and Wood streets, erected in 1875, is now being wrecked, to be replaced by the Rawson Laboratory of Medicine and Surgery, the construction of which is part of the expansion program of the University of Chicago. The new structure, which will be five stories high and cost about \$500,000, will house the Central Free Dispensary and the classrooms, and be connected with Senn Memorial Hall and the Presbyterian Hospital.

—The Illinois State Department of Health has begun a survey of public and private water supplies available to tourists along the highways. The source of each supply will be inspected and samples of the water analyzed. Those found to be reasonably safe for drinking purposes will be conspicuously marked by attaching to the pump or faucet an official safety seal. When conditions make the use of a seal impracticable, a certificate will be used, and a stencil may be used to supplement both seal and certificate. The first seals will appear between Springfield and Danville on

State Highway No. 10 about the middle of August. The survey will extend along the hard roads system first, but eventually will include all important highways. The primary object is the prevention of typhoid fever.

—Dr. Frank Deacon has purchased the Jackson Park Hospital, 1531 Stony Island avenue, for \$225,000, it is reported.

—Plans are being made for a \$300,000 addition to St. Vincent's Infant and Maternity Hospital, 121 North LaSalle street.

—Dr. Ira O. Paul, Rockford, was fined \$200 and costs, August 15, on a charge of disorderly conduct preferred by one of his patients, it is reported.

—The State Department of Health has arranged for a conference at Springfield early in September which will be an organization meeting for the creation of a state council of child health agencies. Every organization which operates on a state-wide scale in the field of maternity and child hygiene has been invited and most of them have accepted the invitation. The object of the council will be to create a clearing house for all problems in the field of child health service, and the first conference is expected to result in the adoption of a constitution and a name for the organization of permanent officers and the appointment of committees.

—At a meeting, August 13, of the program committee of the Chicago Medical Society with officials of the branch societies, plans were made for the weekly meetings of the central society for the coming season to include (1) one meeting a month devoted to thirty-minute clinical lectures, three an evening, on related subjects given by the best clinical teachers in the city; (2) one meeting a month devoted to a symposium, the floor to be open to all members for discussion; (3) one meeting a month devoted to prominent out-of-town speakers, and (4) one meeting a month devoted to joint meetings with branches of the society, the branch being given the opportunity of presenting the program.

Deaths

WILLIAM A. BUCHANAN, Paris, Ill.; Miami Medical College, Cincinnati, 1875; aged 76; died, August 8.

JOHN H. CHEW, Chicago; University of Maryland

School of Medicine, Baltimore, 1863; a Fellow, A. M. A.; president and emeritus professor of Medicine at the Chicago Policlinic; aged 82; died, August 14, of carcinoma of the prostate.

CHARLES H. FEGERS, SR., McHenry, Ill.; Chicago Medical College, 1879; aged 78; died, August 7, of heart disease.

JOHN WILLIAM D. MAYES, Illiopolis, Ill.; Louisville (Ky.) Medical College, Louisville, 1876; formerly county physician of Sangamon County and president of the Illiopolis Board of Education; aged 71; died, August 1.

ALLEN C. BARNES, Glasford, Ill.; Rush Medical College, Chicago, 1888; aged 69; died, July 21, at St. Francis' Hospital, Peoria, of cerebral hemorrhage.

RICHARD J. BICKERDITE, Chicago; National Medical College, Chicago, 1898; died in Los Angeles, August 10, aged 64, following a long illness.

GRACE HARRIET CAMPBELL, Chicago; Woman's Medical School of Northwestern University, Chicago, 1899; a Fellow A. M. A.; on the staff of the Mary Thompson Hospital; formerly an associate in pediatrics at Rush Medical College, and president of the Medical Woman's Club; died suddenly at her summer home, Fennville, Mich., August 1; aged 46.

ALONZO B. CAPEL, Shawneetown, Ill.; Marion-Sims-Beaumont Medical College, St. Louis, 1902; a Fellow A. M. A.; died, August 4, aged 56, as the result of injuries received in an automobile accident.

HENRY A. HALEY, Champaign, Ill.; Chicago Homoeopathic Medical College, Chicago, 1882; died, July 19, of senility; aged 94.

CHARLES E. HARNSBERGER, Alhambra, Ill.; Missouri Medical College, St. Louis, 1880; aged 60, was killed, August 4, when the automobile in which he was driving was struck by a train.

NORTON W. JIPSON, Chicago; Chicago Medical College, Chicago, 1889; a Fellow A. M. A.; on the staff of the Lakeside Hospital, member of the Chicago Historical Society; died suddenly at his home, August 5; aged 58.

JULIUS FRANZ KOWSKY, Chicago; Dearborn Medical College, Chicago, 1906; a Fellow A. M. A.; on the staff of the Robert Burns Hospital; died suddenly, August 1; aged 46, of heart disease while en route to Honolulu.

GEORGE B. RAWLINGS, Eldorado, Ill., (licensed, Illinois, 1878); aged 78; died June 7, of heart disease.

VESPASIAN STOOKEY, Colchester, Ill.; College of Physicians and Surgeons, Keokuk, Iowa, 1882; aged 73; died, July 4.

SAMUEL JOHNSON WALKER, Chicago; died in Lake Forest, August 19, aged 57 years, of cerebral hemorrhage; a Fellow A. M. A.; He was graduated from Yale in 1888, and studied medicine in Northwestern University Medical School, from which he received

his degree in 1894; then followed two years of post-graduate study in Europe. He was adjunct professor of diseases of children in the College of Physicians and Surgeons, Chicago, from 1900 to 1903, and president of the Chicago Pediatric Society, 1904-1905. He served also as attending physician to the Passavant Memorial Hospital, St. Vincent's Infant Asylum and the Children's Memorial Hospital. During the World War he was sent by the Red Cross for ten months' service in the mountainous region of Macedonia and Greece, giving special attention to the care of typhus. For this work, he received a special decoration from the king of Greece.

MARCUS ROLLA DAMRON, Pickneyville, Ill.; Medical Department of the National University of Arts and Sciences, St. Louis, 1916; aged 35; died, July 15, at the Barnes Hospital, St. Louis, of myelogenous leukemia.

GEORGE ELMER LYON, Decatur, Ill.; University of Illinois College of Medicine, Chicago, 1902; aged 45; was drowned in Silver Lake, July 27, near Mears, Mich.

HENRY CLAY ROBBINS, Creston, Ill.; Eclectic Medical Institute, Cincinnati, 1861; Civil War veteran; formerly a druggist; aged 88; died, July 13.

SAMUEL GILBERT SMITH, Herscher, Ill.; Hahnemann Medical College and Hospital, Chicago, 1894; member of the Illinois State Medical Society; aged 57; died, July 24.

BERTRAM WELTON SIPPY; well known for his work on diseases of the stomach and gastro-intestinal tract and as a clinical teacher of marked ability, died suddenly of heart disease, complicating diabetes, at his summer home near Ludington, Mich., August 15. Dr. Sippy was born in Neptune, Wis., Oct. 30, 1866. He attended the University of Wisconsin, 1884-1887, and then went to Rush Medical College, where he received his medical degree in 1890. He served for two years as an interne in the Cook County Hospital, and then was for three years assistant chief surgeon of the Northern Pacific Railroad. In 1895, he went to Vienna for one year of post-graduate study, and on his return became instructor, and later assistant professor of medicine in Rush Medical College and the University of Chicago. A Fellow A. M. A. He was a member of the Association of American Physicians and the American Gastro-Enterological Association, and attending physicians at the Presbyterian Hospital and other Chicago institutions. Dr. Sippy was especially well known for his system of treatment of gastric and duodenal ulcers, a method elaborated on the basis of physiologic and chemical studies. He contributed special articles on this condition to periodical literature and to such works as the Oxford and Nelson Systems of Medicine. He was an indefatigable worker, attending a large clientele and giving instruction to numerous students, assistants and practitioners. During recent years he had devoted much attention also to the care of his country estate near Ludington.

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plying with this rule will be returned, if convenient.

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Editorial

ORGANIZED MEDICINE TO CO-OPERATE WITH THE FEDERATED CLUBS

For the coming year a working program has
been arranged with the Illinois Federation of
Women's Clubs which involves active co-opera-
tion with the Illinois State Medical Society for
constructive health work from the community
angle.

Among projects to be fostered by the 70,000
federated club women of Illinois with the active
aid of Illinois physicians are a series of Health
Conferences, the first to be given at Urbana
November 12 and 13, which will constitute a
symposium of authoritative health counsel for
laymen. At these conferences all speakers dis-
cussing disease, its prevention and cure, will be
competent physicians recommended by the Illi-
nois State Medical Society. Community studies
will be made furnishing an appraisal of actual
health needs and an effort will be made to utilize
the full efficiency of every local and auxiliary
agency to meet those needs. Following such
community inventories, intensive educational
work will be directed through those sections of
the state where the need has been shown to be
the greatest—not only along the lines of mater-
nity and infant welfare but other equally neces-
sary and valuable phases of preventive medicine.

In working together toward a higher health
efficiency for Illinois, a lowered death rate—re-
garding the desirability of which there has never
been a difference of opinion between their or-
ganization and that of Illinois physicians—much
practical good may be accomplished by both units
while the best ways and means of attaining it are
proven out through actual experiment.

The Illinois State Medical Society welcomes
the spirit in which the clubwomen of Illinois
place the common good first. The physicians

stand ready to do their share as professional men and good citizens to stimulate educational work toward such an aim.

CONSISTENCY, THOU ART A JEWEL

A grocer in Chicago advocates the socialization of medicine, though not of the grocer. The grocer contends that doctors make too much money and holds that medical services should be given to people at infinitesimal cost. There are very few rich and comparatively few well-to-do medical men. Many grocers have grown in a few years from poor men to millionaires; some are accused of profiteering in foodstuffs during the war. The contrast between the financial status of grocers and physicians is sharp.

The inconsistency of the present day attempt to socialize the "other fellow's business" is portrayed by Henry Swift Ives of Chicago, when he says:

"A Chicago suburban village referred to as a millionaire colony maintains a municipal electric light plant when not one voter in a hundred in this village would for a moment favor the socialization of his particular business."

"In a prosperous middle western city one of the leading advocates of a municipally owned traction line is a prosperous insurance agent, but he bitterly opposes socialists in their effort to force the state into the insurance business."

"A lumberman in the far west is fearful that his state will go in the business of manufacturing fruit boxes for farmers at cost, yet he advocates compulsory state workmen's compensation insurance to the exclusion of private enterprise and competition."

"A meat packer advocates government ownership of the railroads but fights it for his own business. Numberless instances of similar inconsistencies could be given."

"It is remarkable that in industries most threatened by government ownership, many of the leaders do not seem to care what becomes of the other fellow in the same boat, provided they themselves keep a few feet ahead of the socialist sheriff with his writ of ejectment."

"The real issue in America today is not

whether certain industries shall be socialized, but whether the institution of private property shall be maintained."

"It is too much to expect people to take seriously protestations of one industry against government ownership when we find the leaders of that industry advocating government ownership of somebody else's business."

There is no more reason why medicine should be socialized than there is for the socialization of every other industry. People are just as much entitled to free groceries, free clothes, free shoes, and every necessity of life as there is for free medical attendance.

Socialism will wipe out the rights of the individual and destroys the initiative and self-reliance which is the bulwark of our country.

IS THE UNIVERSITY OF ILLINOIS BEING SEDUCED BY EMISSARIES OF STATE MEDICINE?

Placing the practical power of the medical school of the University of Illinois and of similar institutions in the hands of laymen or of medical theorists, rather than among actual, experienced practitioners would lead to the general belief of a lamentable trend toward state medicine.

Medical schools should be run by medical men. Instructors in a state institution, especially a school supported by tax-payers, should be chosen with an eye to the development of practicing physicians by a transference of the theory of actual experience. The money paid in by tax-payers should be used to educate physicians, rather than to chase rainbows, and thus rescue medical education from schools of doctors of philosophy and place it in the hands of real doctors.

Take for instance our own state institution, and what do we find? Under the plan of reorganization of the College of Medicine of the State University that is now under way what will result for the tax-payers—a medical school or a research laboratory?

First we find that the medical school is actually

run by a layman—a man who is not a graduate in medicine. Next, that a pathologist is made a full time professor of medicine. Also that a high-salaried professor of surgery is allowed to reserve one-fourth of his time for private practice. Backed by the prestige of a large institution, such an indulgence always results in the institution being the handmaid of the individual. Instead of the individual furthering the interests of the institution, it evolves that the institution is used to exploit the individual. Again the tail wags the dog. Prestige and institutional liberty afford two perquisites by which such individuals achieve an otherwise unattainable status as experts with a consequent enormous income from arbitrary consultations.

The non-practitioners will have the right of way over the professors who teach during interregnums of their daily practice, under the present plan of reorganization. For this plan provides for the annual appointment of clinical teachers, but the fulltime theorists are afforded stability of tenure in appointment. Beyond question this is an inimical form of state medicine, this long period appointment of full time, salaried clinical teachers, when complicated by an allowance of one-fourth time off for private practice, comment is best reserved.

This last named feature has brought down an avalanche of criticism upon a prominent university in a neighboring state.

WHY DOES THE MEDICAL SCHOOL OF THE UNIVERSITY OF ILLINOIS TURN AWAY PRACTICALLY AS MANY STUDENTS AS IT ADMITS?

Taxpayers in rural districts, that are suffering from occasional medical attention, or in many instances from no resident doctors at all, are amazed at the news that the medical school of the University of Illinois is turning away more students than it admits.

The need for doctors is great. The output of men to care for the public health is not keeping pace with the growth of the population. Practical, everyday general practitioners are becoming almost as scarce as the proverbial hen's teeth. Of men to perform infrequent and so-called skilled operations in handsome and luxurious hospitals there are plenty and to spare. Any man or woman who needs an expensive laparo-

tomy can find institutions by the score and clever men by the dozens to do this delicate work. But where, Oh where are the practical general physicians to attend to the minor ills of general humanity? The man to lance a boil, to cure a case of constipation or any one of the hundreds of common mortal ailments, the healing of which day by day did so much in years gone by to make the family physician one of the helpful powers from end to end of the United States? . . . where is this man in hundreds of country districts today?

The answer lies in the fact that the family doctor of former years is passing from the scene and he is not being replaced by the current graduates from medical schools. Instead of viewing the medical school as a place in which to learn how to make sick people well, and to maintain a community in good health, the medical student of modern times is being taught to regard his college as a place of research and specialization with the result that away from this institution he is helpless.

HAVE MEDICAL SCHOOLS OF THE PROFESSION. FOR THE PROFESSION AND BY THE PROFESSION

Medical schools owned and conducted by physicians are a thing of the past. The low grade medical college has all but disappeared. Standards of medical education have been raised till we can now boastingly say these standards are high. We felicitate ourselves. We congratulate the public.

Doctors turned out by our high grade medical schools must be good, but where are they? The actual number of physicians is practically standing still while the population is rapidly increasing. The supply of physicians no longer meets the demand. The medical schools turn away more students than they admit. The high cost of a medical education automatically bars out the poor boy. Family physicians, i. e., bedside doctors, are not being turned out by present day methods of medical education.

The state of Illinois has a medical college as an integral part of its state university. Many students hold free scholarships secured through political influence. Great numbers of well qualified students are turned away for lack of facilities to accommodate more than a comparatively

small number. The medical college is supported for the most part by public funds derived from taxes paid by the people of the state.

Medical schools are primarily for the converting of medical students into physicians. The tendency to replace physician teachers with Ph.D. school ma'ams, if continued, will make the family physician extinct. To give first place to research work is putting the cart before the horse.

Clinical instruction of medical students is now begun far too late in the course. Taking such instruction out of the hands of experienced physicians and placing it under "Ph.D.'s" or theoretical "M. D.'s" is but one step removed from doing away with clinical teaching. Medical education is now headed in that direction and the disastrous results are already apparent.

The medical profession as well as the rest of the population of the state is vitally interested in the College of Medicine of the State University. The people of this commonwealth want Doctors. They are in want of Doctors.

The people of the state are entitled to a medical school that is open to all students on terms of equality. The people are entitled to a medical school that will turn out general practitioners for the many rather than specialists for the few.

We hope to see medical education restored to the place where it will be under direction by real medical men—physicians who have the professional viewpoint. The experiment of full-time clinical teachers should be abolished, and that goes for three-quarter-time teachers as well. The state should not by any subterfuge place its salaried employes in competition with the rank and file of the profession.

The facilities of the medical school should be enlarged till the supply of physicians once more keeps pace with the growth in population.

IS THE PUBLIC HEALTH INSTITUTE OF CHICAGO TO BRANCH OUT INTO THE PRACTICE OF SURGERY?

That this corporation engaged in the practice of medicine expects to branch out into the practice of surgery is brought to the attention of Illinois physicians through a conversation held recently by a prominent Chicago doctor and an official of the notorious Public Health Institute.

The two men met casually. The Public

Health Institute man did not know his companion was a doctor, nor did the doctor learn until the close of the interview the identity of his chance companion. Confidentially the Public Health Institute man remarked that he was going to establish a system of industrial surgery in New York City, with its beginning a series of first aid stations placed at intervals throughout the city. This application of "chain store methods" to the practice of medicine by a corporation of lay people will be as appalling as it is brazen, and is a direct attack upon the health welfare of the community.

Attention is called again to the fact that when a hearing was held at Springfield, Ill., before a Senate committee that had under consideration a bill prohibiting corporations from practicing medicine it was the opposition of a representative of the Public Health Institute that denied the medical profession and the public health this protection. Also that one of the backers of the Public Health Institute stated before the committee that the Public Health Institute would not go into specialties of medical practice other than the venereal.

YOUR DUTY TO VOTE

Every loyal physician whatever his political faith may be, should join in the effort to get out the vote at every election. This is necessary in order that the affairs of the state and nation shall be run by the majority rather than the minority which is the case at the present time.

Every citizen has not only the right, but also the duty of voting and the doctor especially should be looked up to as a participating citizen, for being a slacker in this matter must give rise to the suspicion that he is not fully informed in, or is culpably careless of his American heritage and his duty to his government obligations which should animate his every action.

Secretary of the Navy Wilbur, speaking before the Christian Endeavor in Pittsburgh on the intelligent use of the ballot, said:

A fundamental requisite of good citizenship in this country is to vote at every election, always to be counted on to be one of the Government. Don't leave it to others to run the Government. It is your Government. Its troubles are your troubles, and its defects belong to you. Don't roll over on your tongue as a choice morsel the subject of political corruption. . . . No party has a monopoly on honesty. There

are dishonest men who claim membership in every party, and seek to control its policies and hold political office by its suffrage. Honest men cannot make politics clean by staying out of politics and by demanding that dishonest politicians be put in jail.

And President Coolidge:

Popular Government is facing one of the difficult phases of the perpetual trial to which it always has been and always will be subjected. It needs the support of every element of patriotism, intelligence and capacity that can be summoned. I am much less concerned for what party, what policies and what candidates you vote than that you shall vote, and that your vote shall represent your conviction. When an enlightened electorate acts, I have no fear of the result.

A nation-wide "get-out-the-vote" campaign is now well on its way to success. Let the medical profession do its full duty towards putting the campaign over. Don't forget to register and vote on November 4.

REPUBLICAN OR DEMOCRAT—PHYSICIANS SHOULD TABOO PARTY POLITICS

Doctors should be more patriotic than partisan at elections. Doctors, like all others, should first of all vote as Americans passing upon the issues that come before the American people solely with regard to the question whether they served the highest aims and ideals of Americanism. It is possible that in some elections that party and patriotism may appeal to the same loyalty—this is especially true in national affairs. At other elections a strict party vote in some instances can be construed as nothing less than disloyalty to the public as well as to their own profession.

Protection of the health welfare of the people is the duty of the doctor. Medical men must stand together. The organized profession must have a clear cut platform on things medical and must not hesitate to back it whether it is unpalatable to either of the old parties and their candidates. In the new order of things there is no longer to be considered the question of party brand. The slogan for the future should be: DOES THE CANDIDATE STAND FOR RADICAL MEDICAL LEGISLATION WHICH IS ALWAYS UNAMERICAN, DESTRUCTIVE ALIKE TO THE INTEREST OF THE PEOPLE AND THE PROFESSION.

A candidate's views on national issues by no stretch of the imagination can be construed as

fitting or unfitting him for office in a municipality or state or for membership in his respective legislature, but it is of vital importance to the people and the profession as to what views he holds on questions like the following:

State Medicine (medicine degraded);

Practice of medicine by corporations;

Practice of and dictation of medicine by laymen;

National socialization of medicine;

Compulsory health insurance;

Practice of medicine by the scientifically uneducated.

All these are issues that reach in every home in the land, issues that enter into the daily life of every man, woman and child and touch every human activity.

INVITATION TO AMERICAN PHYSICIANS

The Inter-State Post Graduate Assembly, directed by the Tri-State District Medical Association, extends a hearty invitation to the physicians of America who are in good standing in their State or Provincial Societies to attend the annual assembly, which is to be held at Milwaukee, Wisconsin, October 27th, 28th, 29th, 30th and 31st, five full days of post graduate work.

This Association is supervising an Inter-State Post Graduate Clinic Tour to Canada, British Isles and France to start May 18, 1925. Leading teachers and clinicians of Canada and Europe will arrange and conduct clinics and demonstrations in the following clinic cities:

Toronto and Montreal, Canada; London, Liverpool, Leeds, Manchester and Newcastle, England; Edinburgh and Glasgow, Scotland; Dublin and Belfast, Ireland; Paris, Lyon and Strasburg, France.

Besides the main tour, special tours to practically all the leading centers of Europe will be arranged. Sight-seeing trips to all places of interest in the countries visited will be included in the regular tour.

Cost of tour, including first-class hotels, board, steamship, clinic arrangements and all ordinary traveling expenses, under \$1,000.00.

The tour is open to physicians in good standing in their State Societies, their families and friends who are not physicians.

For information, write the Managing-Director, William B. Peck, Freeport, Illinois.

A WOMAN THE FIRST HEALTH COMMISSIONER OF ILLINOIS—1760

In the search for data for the History of Medical Practice of Illinois, the committee has run across much information that should incite a thrill for medical ears.

We publish below two interesting items pertaining to early medical practice in Illinois; one item details how in 1760 a woman became the first medical official in the state. The second how in 1766 the crown of England appointed a "Doctor Annesley" to look after the health of the Indians. For this service the Doctor rendered a bill which shows that even in that day the pay of medical men was graded at a less value than that of mechanics and petty officers.

A WOMAN THE FIRST MEDICAL OFFICIAL

Oddly enough, Illinois' first Commissioner of Health, speaking approximately, was a woman, Mme. Beaulieu. She was, too, the pioneer woman physician in this country.

It might be assumed that the reign of priests as medical advisors terminates with the appointment of Madame Beaulieu,—an educated woman as Director General of Morals and Medical Matters,—by the settlers of Cahokia. Mme. Beaulieu was educated in Quebec, where she probably received instruction from Nuns who ran a dispensary and whose medical activities radiated to all points of the compass in the country under the French rule. Mme. Beaulieu's appointment was a curious combination of authority which might with propriety be called that of the "first Commissioner of Health." Just as our modern Boards of Health assume responsibility for checking the spread of venereal diseases, this lady sought to achieve a similar result by inculcating moral measures as a prevention of the curse of civilization. Just when Mme. Beaulieu assumed this office is not clear in the records. From her age we learn the time could not have been until the very close of the French period that terminated with the capture of Quebec by the British in 1760, and British occupancy of Illinois in 1765, for Mme. Beaulieu was born in 1742. Her father was one of the officers of the French troops that came to garrison at Ft. Chartres. He settled in Cahokia, where his daughter married M. Beaulieu. Because of her devout life and her

devotion to the moral uplift of the village, with a deep interest in medical matters, the office of "Director General of Morals and Medical Matters" was created for her. That Mme. Beaulieu practiced obstetrics extensively is gleaned from the writings of the Chronicler of the time, who states:

"She was doctress in most cases and Sage Femme General of many years." A remarkable woman she must have been, for in diseases of women it can be well surmised her services were much sought. Women would suffer in silence rather than confide matters of great delicacy to the priests, Mme. Beaulieu's predecessors in the practice in the naked country. The services and influence of Mme. Beaulieu extended well into the period of her successors in the practice, the regular physicians of the early part of the last century. THE CROWN PAYS DR. ANNESLEY FOR MEDICAL

SERVICES DURING BRITAIN'S REIGN IN ILLINOIS—1766

The superintendent of Indian affairs, reporting Sept. 25, 1766, sets forth a bill for medical services to the crown as follows:

"For attendance and medicines administered to the Indians at this place from the 25th of Sept., 1766—to this 24th March, 1767 inclusive, is 181 days: at 5/Pr Day: £45.5. Pensylv Currency at five Livres to the Dollar."

George Groghan, superintendent of Indian affairs, had appointed Dr. Annesley, so the crown sought verification of the bill through John Reed, March 25, 1767, at Ft. Chartres and received information that the appointment was made by the Deputy Superintendent of Indian affairs of the northern district and himself, and that the bill was just. In the same year Dr. Annesley acknowledges receipt of the sum of forty-five pounds, five shillings, Pennsylvania currency of five livres to the dollar from Edward Cole, Commissary of Indian Affairs at this place. That this was above the average pay for medical men in the good old days is apparent from the following:

INDIAN DEPARTMENT SALARIES AT FORTS ON FRONTIER

A Commissary	£200 sterling
A Gunsmith	£100 sterling
An Interpreter	£ 80 sterling
A Doctor	£ 80 sterling

The commandant adds in the King's worst English:

"The Ginerall may think od of a Doctor being

wanted att Those posts. Butt its impossible to do without one att Fort Pitt as there is Such a vast Resort of Indians and Warr partys passing continuly by that post."

At the prevailing rate of \$4.85 for each pound or less than \$400 a year, doctors did not get rich in the service of the crown in the early days. But the crown was bent upon conquest, and gunsmiths in consequence were more important to the state and therefore received better remuneration than the guardians of the soldiers' health. In this list, as in our time, those engaged in intellectual pursuits were graded for less pay than mechanics and petty officers.

The above are examples of hundreds of other interesting steps in the growth of the Illinois country portraying doctors as the "trail-blazer"—telling of their work, their want, their heroism and courage down to the present day. Everything from the earliest period of medical practice in Illinois will be set down in the history of medical practice of Illinois, now being prepared by the committee on medical history under the sponsorship of the Illinois State Medical Society.

Sold on subscription. Order your copy now. Surely you will want to have in your medical library this written record of the work of your forebears.

Below will be found order blank for Medical History.

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Progressive physicians, medical schools, hospitals, libraries, reference and statistical bureaus, and institutions of learning generally will want a copy of this volume as a concise, dependable authority for daily use. Unique, comprehensive, and a long wanted unit of historical value, this chronicle of Illinois progress is a record of work done for humanity by the profession. These annals are a bequest of value for posterity; an heirloom for the children, relatives and friends of former and present members of the Illinois State Medical Society.

ORDER YOUR COPY TODAY! DON'T LOSE OUT ON THIS!

HURRY ON DATA FOR MEDICAL HISTORY OF ILLINOIS

The time is rapidly approaching when data intended for the Medical History will have to be in the hands of the committee if it is to become a part of this tribute to the medical profession of Illinois.

A salient point to be borne in mind is that if this history is to be worthy of the work it aims to commemorate, it must be constructed coherently from the medical history of every community in the state. This means that every physician should pause long enough to supply the committee with what data he or she possesses or with information where such data may be procured. Sifting chaff from grain with chopsticks is ultra-easy in comparison with winnowing out the archives of the past. Annals of those sturdy pioneers are only partially found in libraries and court houses. By far the greater portion of desirable memorabilia is apt to be locked in garret chests and faded family albums and scrap books. Will every member of the Illinois State Medical Society make it a point to see that his community is in some way informed that this work is in progress and request for the history committee the loan of documents, pictures, or other mementoes that may be of interest or assistance?

This history can be made a very valuable ref-

erence work as well as a respectful tribute to those who laid the foundation of medical work in this state.

Coming from the past to the present it is the purpose of this record to trace the inside growth of the practice of medicine in Illinois and to present a bird's eye view of the gradual assembling of propaganda both inimical and friendly to the future of the science of medicine and the prophylaxis of a perfect sanitary service.

With the second largest city of the United States and one of the ten largest cities in the world situated in Illinois, and boasting one of the lowest death rates, thanks to this present excellent sanitary service, detailed account of the fight for good medicine in Illinois will prove of rare interest, even to the municipalities without the gates.

Data can be sent to any member of the committee. Receipt will be acknowledged and material will be returned.

To make this history, with the scores of inevitable details of interest to the profession, of value as a unit in the future annals of Illinois the work should list all officers of the society since its inception; epitomes of the accomplishments of each annual meeting; biographies of the founders; documentary memorabilia of early years; decadal reports of organization activities, complete proceedings of the first session of the organization; financial status of the society; legislative activities, including administration of the medical practice act, code of ethics, malpractice defense, police duties of society; licensing of physicians; medical colleges and their aims; allied institutions such as hospitals, dispensaries and nursing schools; sanitary service from state and community boards of health to general public welfare endeavors; records of county and city medical societies; comparative chronological tables; portraits of founders of these spendid men who have carried the burdens of medical organizations and medical men for years without complaint; a reproduction of the historic charter—one of the oldest of the state—and what non-professional activities in the way of civic duty have been accomplished by busy and respected medical men of Illinois. Nor must be forgotten attempts at disruption of the society; its triumphant survival; the objectives for which it has striven since its founding, and, best of all, the

note of optimism that will make easier the way of the medical man in generations to come.

That this note of optimism must be literal advice to "gird up the loins and enter the fray" will make it none the less a note of courage. Once a man knows where his enemy lies in ambush, first defense, and later, victory are assured.

Let it be repeated that every doctor in the state of Illinois who wants this history to be an honest record of the patient years and the self-sacrificing men and women whose deeds made possible the wealth of Illinois, should try to send in at least some small thing to make complete the book.

NOTE: The following are topics on which the Illinois State Medical Society, Committee on Medical History, desires information from you:

1ST PERIOD—From Discovery of Illinois to First Ante-Bellum Days.

- (1) Early Medicine in Illinois.
 - a. Healing from the days of the aborigines and mound-builders to the early French and English explorers. Relics, citations, pictures.
- (2) Physicians and Pioneers.
 - a. Ante-boundary days; sporadic settlers, medical attendance for the covered wagon; herb doctors; primitive surgery.
 - b. Medicine and Missionaries.
- (3) The Commonwealth Develops.
 - a. Assertion of boundaries; pioneer doctors migrate to new territory.
- (4) Days of the Circuit Rider.
 - a. Saddlebag doctor, perils, triumphs, burdens.
- (5) Forts, Physicians and Settlements.
 - a. Government doctors.
 - b. Crystallization of settlements.
 - c. Fixation of physicians.
- (6) Medical History in Early Metropolises of Illinois.
 - (i. e., Galesburg, Lockport, Galena, East St. Louis, Belleville, Quincy, Peoria, Cairo et al.)
- (7) County Societies.
 - a. List and dates of founding.
 - b. Achievements and history.
- (8) Sanitary Science and the Pioneer.
 - a. Early community restrictions.
 - b. First health laws in villages.
 - c. Early county laws of sanitation.
 - d. Territorial control of health.
- (9) Institution of Medical Schools.
- (10) Establishment of Hospitals, Asylums and Infirmarys.
- (11) Organization Illinois State Medical Society.
- (12) Creation of County Societies.
- (13) Early Epidemics.
- (14) Early Medical Practice; the doctor as a utility citizen.

2ND PERIOD (From the Late Fifties to the Fin De Siecle Period of the Late 90's).

- (1) Development of Medical Education.
 - a. Extension colleges.
 - b. Shift in commercial center of state to Chicago.
 - c. Increased hospitalization.
 - d. Humane care of insane.
- (2) Inception and Growth of Cultism.

From Voodoo to Abrams. Please enumerate any data of interest in regard to these continuous and varying charlatans.
- (3) Medical Legislation Enacted.
 - a. Medical Practice Act.
 - b. Health laws.
 - c. Establishment State Board of Health.
 - d. Malpractice defense.
 - e. Ad infinitum.

- (4) State Sanitary Service.
 - a. Drainage canal.
 - b. Milk and water supervision et al.
 - c. Food inspection.
 - d. Contagious disease control.
 - d. Veterinary sanitary control.
 - (5) Women in Medicine.
 - (6) Development of the Nursing Profession.
 - a. Early Religious and missionary service.
 - h. Nursing as a lay profession.
 - (7) Change in Medical Practice.
 - a. Differentials from industrial progress.
 - b. Results of advanced research.
 - c. Sequelae of progressive sanitation.
 - (8) Progress of County Societies.
 - (9) Medical Journalism in Illinois.
 - a. Official organ state society.
 - h. Other medical journals.
 - a—county.
 - b—city.
 - c—specialty.
 - d—general.
 - (10) Financial.
 - (11) The Council and Its Activities.
- 3RD PERIOD—The New Century: From 1900 to Date.
- (1) Shifting Therapeutics.
 - a. Serum medication.
 - b. Immunization.
 - c. Vanishing diseases.
 - d. Physical mediums from environment and diet to X-ray, radium, electro-therapy, etc.
 - (2) More Medical Legislation.
 - a. General review.
 - h. Federal, State and Municipal dictation and competitive medical practice.
 - c. Lay Control of Medicine Practice.
 - (3) Sectionalism in Medicine.
 - a. Absorption of homeopathy, eclecticism et al.
 - b. Development of specialists.
 - (4) Outlook.

PRINCIPALLY PERSONAL

- (1) Society Founders.
 - (2) Chronological List of Society Officers.
 - (3) Orators and Lecturers for State Meetings.
 - (4) Portraits and Biographies.
 - (5) Documents.
 - (6) Medical Colleges—both defunct and active.
 - (7) Membership Statics.
 - (8) War and Illinois Doctors.
 - a. The Revolutionary War.
 - b. The War of 1812.
 - c. The Mexican War.
 - d. War of the Rebellion.
 - e. The Indian Wars.
 - f. Spanish-American War.
 - g. World War.
 - (9) Medical Men Away from Medicine.
 - a. In industry.
 - h. In science.
 - c. Belles-lettres, art, music, literature.
- Cordially yours,
Medical History Committee,

ILLINOIS STATE MEDICAL SOCIETY.

O. B. Will, M. D., Peoria.
 Charles B. Johnson, M. D., Champaign.
 Carl E. Black, M. D., Jacksonville.
 George A. Dicus, M. D., Streator.
 James H. Hutton, M. D., Chicago.
 Geo. H. Weaver, M. D., Chicago.
 Lucius H. Zeuch, M. D., Chicago.
 Charles J. Whalen, M. D., Chicago.

A NEW MEDICAL JOURNAL

The *Radiological Review* makes its bow to the public with Volume 1, Number 1, September-October, 1924, just off the press. It is a bi-monthly journal devoted to the progress of x-ray and radium as it relates to the practicing physician and dentist. It is published at Quincy, Illinois, by the Radiological Review Publishing Company. The *Journal* is devoted entirely to a new purpose in radiological science—the general practitioner's "informant" in the progress of radiology. The reason for the establishment of a new journal, the sponsors claim, is that the busy practitioner cannot afford time to read long technical articles in the leading journals devoted to this subject and that something had to be done to get information to the practicing physician in a brief but complete message.

We wish the *Radiological Review* all the success possible in their new undertaking.

WARNING

It has come to our attention that a promoter by the name of Everhart, under the name of the National Cancer Research Institute and Clinic has been using our names in connection with the promotion of an alleged cancer cure. We wish to warn all persons that no confidence should be placed in the promoter, the institute or the alleged cure under any representation in which our names are used, as they have been used entirely without our knowledge or consent.

M. L. HARRIS,
DANIEL E. MURPHY.

THE SMALL COLLEGE IS THE BEST

Mr. George Horace Lorimer in the *Saturday Evening Post* takes the position that the small college rather than a great university is the backbone of higher education in the United States. He says that there are two types of institutions broadly overlapping, but neither entirely covering the field of the other. His argument in favor of small colleges we quote as follows:—

In laying the foundations of a liberal education, in forming character by benign human contacts, in fitting the student for life itself rather than for the job that is but part of life, the small college stands without a rival.

The very limitations of the small institution preserve it from the danger of becoming unwieldy, top-heavy, or over-extended. What it lacks in plant it

makes up for in personnel. Its very smallness encourages individuality rather than standardization. The human contacts are closer. Men play a larger and freer part. They are not overwhelmed by rules, buildings, overwide choice of courses, complex social life and over-elaborate administration. There is as much to be said for the simple life in education as in the world at large. In all essentials, a college is merely a group of teachers and learners. A dozen young men gathered in a quiet shady place might be the kernel of an institution of the soundest learning, if only a Plato sat in their midst. . . .

Our Rockefellers and Bakers, and other public benefactors to be grouped in the same class, make a very short list; but for every man who can give a million without missing it, there are twenty who could give a hundred thousand with small inconvenience. We hazard the opinion that if these men would make a careful study of some of the smaller colleges, availing themselves of accurate information already gathered as to the quality of work they are doing, they could lay out their money just as shrewdly and beneficently as their bigger brothers in the hobby of giving.

THE TRUE PHYSICIAN AND HOW YOU MAY RECOGNIZE HIM

(Read, approved and ordered published by the Executive Committee of the California Medical Association.)

What doctor to call is a momentous question to ever-increasing numbers of people. It always has been a problem, but the many facilities stimulating the "wanderlust" spirit keep ever-growing numbers of people away from home friends and family doctors. The problem is also constantly being accentuated by the breaking down of laws and methods employed by state governments in placing their stamp of approval (license) upon those who treat the sick.

California, as "the world's playground," has an exceedingly large element of floating population. It is also quite well known as a state that puts its stamp of approval upon all sorts of cults and inadequately educated practitioners of healing.

Hundreds of appeals come to medical organizations, medical publications and other medical agencies from guests at hotels and transients of all classes, asking to be referred to a "reliable doctor." Obviously, medical organizations cannot give this information further than to show enquirers a list of members of medical societies and the staffs of good hospitals.

It is believed that intelligent persons will find little difficulty in selecting a competent physician themselves by measuring them by the following points:

WHAT CHARACTERIZES THE TRUE PHYSICIAN

1. His education is attested by the degree of "Doctor of Medicine" from some worthy institution of learning.

2. His moral, ethical and professional standing is attested by his membership in his county, state and national medical associations.

3. His standing as a man (or woman) and as a citizen is attested by precisely the same standards applicable to others.

4. His legal standing should be attested by his license to treat the sick. Unfortunately, this license means very little in many states, and in few it is more unreliable than in California.

5. The true physician never practices, never recognizes and never connubiates with those who do practice, sectarian or secular medicine, fads or cure-alls of any sort under any circumstances whatsoever.

6. He considers the patient rather than the disease, and he utilizes all proved knowledge and any or all proved methods in the treatment of his patients.

7. He recognizes that every patient—and every human being for that matter—needs advice calculated to avoid and prevent health dangers, correct existing troubles and prevent their repetition or progress.

8. He knows that the infirmities of the body, mind and soul are inseparably linked together so as to require all that science, art and personality can bring to bear in the patient's behalf. He renders what he can of these services and he delegates the others wisely.

9. He understands that no one person can know or practice to the best advantage all phases of the great field of medicine, and, therefore, whenever indicated and feasible, he asks other physicians for the assistance he needs.

10. He either maintains, or has contacts which insure, adequate consultation, laboratory, x-ray, nursing, hospital and all other services necessary for the welfare of his patients.

11. He follows the moral code of his profession, which insures confidential, sympathetic, consecrated service to his patients in such volume and at such times and in such places as are provided.

12. Like any other servant, he is entitled to a just compensation, but again he follows that provision of his ethics that entitles his patient to service at a compensation entirely consistent with his ability to pay.

13. He neither indulges in nor permits "personal puffery." When his name is seen in the public press, it is usually as the author of some dignified statement about the condition of some patient whose welfare is a matter of public concern. More rarely he may give an authorized interview or write an article for public information upon some health subject. He relies for the growth of his own clientele upon the influence of the ever-widening circle of those friends whom he has served.

14. If older and more experienced, he is ever extending the helping hand to the worthy younger men of his profession. And if a younger man, he is upholding the prestige of those already established. He is always interested in and helpful to worthy members of the ever-enlarging groups of assistants he must utilize to render the best to his patients.

15. He will admit that the best medical education is often inadequate, and he will endorse the statement of Hippocrates that "experience is fallacious and judgment difficult." But he feels that physicians are the

only persons even remotely prepared by education and training for leadership in matters pertaining to the improvement of health, the limitation of diseases, and the treatment of sick people.

16. He contributes, when he can, to medical literature; attends and takes an active part in medical society meetings; subscribes to and reads good medical journals; he thoroughly examines and carefully studies his patients, and he always makes written records of his findings. He is never boastful nor inclined to discuss his patients with others. He never guesses; when in doubt, he says so and invites consultation or assistance. He realizes his responsibilities and approaches his problems with the humility, seriousness and earnestness of purpose that ever characterizes the servant of God or of man and of science.—*California and Western Medicine*, July, 1924.

THE MATERNITY BONUS IN AUSTRALIA A FAILURE

The London correspondent of the A. M. A. Journal, in its February 18, 1924, issue, says:

One of the more socialistic provisions of the socialistic Insurance Act is the granting of a bonus on the birth of children in Australia, where a labor government is not a novelty. This has been done since 1912, the amount given being \$25. When the proposal was first made, a deputation waited on the prime minister, Mr. Fisher, to ask that, instead of the bonus, arrangements should be made that every woman should have proper care and treatment during her confinement, but without success. It was thought at first that the bonus would be claimed only by those who were not well-to-do; but it is claimed by all women who give birth to children, irrespective of their financial position. For the year ending June, 1922, the amount paid in the Australian commonwealth amounted to \$3,500,000 of which about \$75,000 was spent in administration. Before the Victorian National Council for Women, a woman physician, Dr. Edith Barret, has read a paper, entitled, "Is the Motherhood of Australia Getting the Best Value from the Maternity Bonus?" and answers, "No." On its introduction, the supporters of the measure claimed that it would increase the birth rate, or at least arrest the decline, and diminish maternal and fetal mortality. But since the introduction of the bonus, the birth rate has steadily declined. Child-bearing has not been rendered any safer. The decline in infant mortality has been trivial, and cannot be traced to the bonus. The rates from 1914 to 1921 are 71.5, 67.5, 70.3, 55.8, 58.6, 69.2, 69.1 and 65.7. Dr. Barret recommends the introduction of maternity homes, as in New Zealand, where the costs work out about the same per labor as the bonus.

FANTASTIC SCHEMES FOR FORMULARIZING AND SOCIALIZING MEDICINE

(Read, approved and ordered published by the Executive Committee of the C. M. A.)

Physicians of Alameda County have been growing more and more restive over the elaborate methods

developing there, which are calculated not only to produce a state of socialized medicine, but to reduce this great science to a formula and, in some instances, a code formula at that.

We are convinced that physicians, as well as other thinking citizens, have reason to be disturbed. This is not in the physicians' personal selfish interests, but in the name of the unknowing public, and particularly of the sick of the community. From a personal standpoint, more and more physicians are finding more and more to do in Oakland, a condition that is likely to expand rather than decrease, and for very obvious reasons. Friends of better medicine, including physicians, nurses, teachers, and private citizens, have been supplying California and Western Medicine with depressing data for some time about a scheme of things medical that should be labeled for what they are.

First, we will call attention to what its sponsors proudly designate the "Oakland method" of handling the health of school children. They do it by a "team method" to which there is no insufferable objection, provided the team is wisely selected, given all necessary facilities for good diagnostic work and sufficient time to do it in. The teams who are diagnosing diseases and otherwise practicing medicine among school children consist, according to a published statement, of:

"One doctor.

Four nurses.

One physical education director.

One optometrist.

Fourteen trained science pupils."

It is reported that one of these "teams" examines from 350 to 400 children a day, and record their findings. Just think of it! Imagine one doctor adequately examining even one-fifth of that number of persons in one day. *Yet, it is findings like these upon which parents rely to safeguard the health and lives of their children.* No wonder competent physicians are saying that some of their little patients about whose future they are most concerned are rated by school authorities as perfect, and others with definite diseases are diagnosed "undernutrition."

After one of these teams—and there are three of them—diagnoses the diseases and defects of 400 children in a portion of a day, the diseases and defects are put together in code on assorted colored school cards. For the information of the doctors? *No.* For the information of the teachers so that "the pupils' health record is always available to the teacher."

It is said that these non-medical persons are not practicing medicine within the meaning of the law because they employ only drugless methods of treatment, and they say that "you will notice that at no time has a diagnosis been made." This because they record diseases and defects by code numbers.

Listen to this:

"When each child's pink card reaches this (statistical) table, any number below a 9 is copied from the card onto the list in the corresponding space opposite the child's name. By this means a complete record is obtained of all suspected defects of the class. A deduction is made for anything marked below a 9.

For instance, a child is marked a 7 on teeth—clean, an 8 on posture, an 8 on nutrition, and all the rest 9. His total deduction is 4 (3 for every 6, 2 for every 7, and 1 for every 8). This figure is written on the pink card in a space provided, and also on the Classroom List opposite the child's name. The number of 6's, 7's, and 8's in the class is then added, as well as the number of deductions."

We assume that as soon as these statisticians become familiar with the modern method of selecting special cards by passing rods through cards with holes punched in them in certain manners, they will be able to elaborate their statistics and increase the variety of diagnoses without overworking the statistical department, whose figures furnish the basis for more and more publicity and propaganda. Just think of the speed with which one can practice medicine when all that is necessary to establish the child's grade of health is to run a rod through holes in cards!

Mothers and fathers of Oakland, and to a less extent elsewhere, will make serious mistakes if they accept and rely upon the findings of such hurried, unreliable and often otherwise incompetent data as a guide as to what to do about the health of their children. Diagnoses of diseases and defects are not made by such balderdash, and the earlier the general public finds it out the better for the health of their children.

There is an educated physician in Oakland for about each 600 people, including men, women, and children. They all have offices, hospital connections, and facilities for getting laboratory, x-ray and other assistance. Their ethics provide that they may serve for fees consistent with the patient's ability to pay, whether nothing, little, or much. If a patient doesn't believe in them, then he should go to his favorite species of quack; it is doubtful if many would believe in any quack enough to feel the security that they are asked to accept from the incompetent formularized diagnoses of disease made by the school health "teams." The leaders in this work emphasize the untruthful claim that their work is free to the rich and to the poor alike. This is not a fact; it is paid for by everyone who pays taxes. Even if it were free, it still may be the most expensive service of all unless it is checked up by a physician who does not stultify his own soul by trying to carefully examine 400 patients in one day.

—C. & W. Medicine.

WHY THE QUACKS SUCCEED

NEWSPAPERS PRINT NOTHING IN CONTEMPT OF MOTHER EDDYISM

H. L. Mencken, in the May, 1924, issue of *American Mercury*, says:

The osteopaths, as they grow in prosperity and pretensions, greatly improve the technic of their propaganda. There was a time, and it was not so many years ago, when the publication of anything unfavorable to them in a newspaper—say the report of a practitioner landed in the hoosegow for attempting to treat smallpox by thumping the spine—brought a husky ex-

wheelwright or former piano-mover to the office, hot to defend with his fists the science he had lately begun to adorn. But now they run to far more seemly and subtle devices. Dr. Fishbein's article in these pages last February was followed by no such invasion of Sandows and Jack Dempseys. Instead, there came a terrific avalanche of letters from literary osteopaths in all parts of the republic, many of them very well written, and all of them denouncing Fishbein as an agent of the Medical Trust and demanding space to answer his slanders and to expose the crimes of that octopus. No reply being made to these indignant but usually very polite protests, there followed Round 2. Its technic was borrowed, not from the International Union of Stevedores and Longshoremen, but from the Church of Christ Scientist, an organization highly adept at alarming and working the public prints. It took the form of a second avalanche—this time from persons who represented themselves to be non-believers in the osteopathic sorcery, but who, nevertheless, loved justice and fair play so fondly that they could not see the osteopaths belabored without going to their defence. These mysterious correspondents, like the first set, demanded that *The American Mercury* be thrown open to the osteopaths, and that they be given a free license to expound their gospel at length. A connection between the two waves of attack being suspected, the second went without reply like the first, and so the matter rests.

A trivial episode, but not, perhaps, without its significance, for I incline to think that it explains the politeness with which the osteopaths have been treated of late in most of the daily newspapers. That politeness, in brief, is the result of good press work, and the good press work, as I have hinted, seems to have been borrowed from the Christian Scientists. In every city wherein Christian Science flourishes its high priests and medicine men maintain a suave and persistent gentleman whose job it is to see that the local newspapers print nothing in contempt of the Eddyian magic. He is on watch day and night, seven days a week, and most of the managing editors of the land, having tasted his big stick at one time or another, are now exceedingly reluctant to stir him up. Within twelve hours after any reference to Christian Science gets into print that did not emanate from official quarters, he presents himself with a long typewritten rectification of its errors, and demands that it be printed. If the demand is refused, then the fun begins. The next day arrive several protests from writers who represent themselves to be old subscribers. The day following there are half a dozen telephone calls from local Babbitts, often eminent, all of whom explain carefully that they are not Eddyites themselves, but that it amazes and shocks them to see a reputable paper attacking and misrepresenting religion. The third day the managing editor is summoned to the office of the owner, and greeted with something like this:

In God's name, what have you been putting into the paper? My telephone has been ringing day and night for two whole days, and now my wife's aunt is camped

at my house, raising blue hell. She says that we are making fun of her religion, and breaking her heart. My daughter went to a bridge party today and was bawled out by an old harridan who wanted to pray for her. Can't you lay off such stuff? I missed the item myself, but it must have been awful. If you want to can the city editor, go ahead. I must get some sleep.

So next day there is printed a long article explaining solemnly that Mrs. Eddy was not a faith healer, that there is no connection whatever between Christian Science and the hocus-pocus of M. Coue, and that no Christian Science practitioner ever takes money for his assistance or pretends to do more than expound the authentic word and will of God—in other words, there appears the florid and effective press matter that the saucy and persistent gentleman has had in his pocket all the time, and so the Only True Revelation gets another excellent free advertisement, and a few more neurotic women appear at the tabernacle the Sunday following, vice those lost to the New Thought, laparotomy or the emblamer during the week. As I say, most managing editors have been bitten, and so most managing editors are now careful. It would be hard today to find six American newspapers that ever dare to mention Christian Science in their editorial columns without the most elaborate precautions. For newspaper editors are used to having the mob behind them: when they find a mob in front of them it almost always scares them stiff. The Christian Scientists maintain such a mob. It is small and polite, but extremely pertinacious and effective. It has a disconcerting way of including the owner's aunt, or the wife of an important advertiser, or even the wife of the managing editor himself. To flout it is to court trouble, and, in the long run, disaster. As I say, I suspect that the osteopaths have borrowed the trick and are working it to excellent effect. They have made money in recent years, and so yearn for dignity and good repute. They no longer turn ice-wagon drivers into doctors in six months; they have begun to adopt professional airs. With this pretension goes better press work.

But their fundamental pathological and therapeutic ideas, of course, remain nonsensical, and as such they will be represented, whenever they are mentioned at all, in the pages of this great moral journal. Whenever an osteopath grows intelligent he simply ceases to be an osteopath, and becomes an amateur physician of dubious equipment. So long as he is faithful to the teachings of Papa Still, the founder of the science, he remains an ignorant quack, and but little removed from his poor relation, the chiropractor. *The American Mercury* does not pretend to any austere judicial spirit in its dealings with such charlatans. It is frankly against them, as it is against fortune-tellers, communists, New Thinkers, Wilsonian idealists, dowsers, Kiwanians, Christian Scientists, Ku Kluxers, Prohibitionists and all other such dolts and swindlers. Its columns are no more open to their rantings against sense than they are open to the political drivel of Mr. Coolidge, the prospectuses of the sellers of Texas oil stock, or the advertisements of Peruna. This magazine, in brief,

is not dedicated to such debates as go on in country barber-shops, Epworth League meeting rooms, and the smoking-cars of slow trains. It does not pretend to compete with the *Congressional Record*. It assumes that its readers are civilized, and that they are thus not partisans of any of the bizarre gospels which now engage one hundred per cent Americans, in all fields from aesthetics to obstetrics. It proposes, from time to time, to give them glimpses into these gospels, but not, certainly, with any notion that they are in danger of being converted. Its aim is to amuse them, not to insult them.

Thus the pussyfoots of the new evangels may as well take warning forthwith that no conceivable bombardment of protests and demands, however cunningly disguised as neutral and virtuous, will ever penetrate to these chaste pages. But to be anaesthetic to their lascivious approaches is one thing; to cherish the doctrine that they ought to be put down is quite another thing. Rather too much of that doctrine has been heard in the United States in late years. Until they grew strong enough to exert political power, the osteopaths, for example, were harassed in state after state, and even now, if I do not err, they are denied certain rights that all orthodox physicians, however incompetent, freely exercise, including the right to prescribe wines and liquors under the Volstead Act. Most of these harassments were directed by medical men, and not infrequently, I believe, they were inspired by nothing more enlightened than trade jealousy. The osteopaths were raking in the money of *Homo mousteriensis*; ergo, they were scoundrels, and the law must scotch them. The Christian Scientists, before they perfected their press department, went through the same bedevilment; to this day in the Maryland Free State, which boasts of its long and honorable record of toleration, it remains a misdemeanor for a Christian Science practitioner to accept a fee from a patient, and the prohibition has to be got around by the device of taking free-will offerings. Elsewhere there are constant attacks of the same sort upon fortune-tellers, layers on of hands, communists, Ku Kluxers, Holy Rollers, Negrophiles, heroin addicts, cancer quacks, and a hundred and one other varieties of fanatics and mountebanks. Here the strange American ardor for passing laws, the insane belief in regulation and punishment, plays into the hands of the reformers, most of them quacks themselves. Their efforts, even when honest, seldom accomplish any appreciable good. The Harrison Act, despite its cruel provisions, has not diminished drug addiction in the slightest. The Mormons, after years of persecution, are still Mormons, and one of them is now a power in the Senate. Socialism in the United States was not laid by the Espionage Act: it was laid by the fact that the Socialists, during the war, got their fair share of the loot. Nor was the stately progress of osteopathy and chiropractic halted by the early efforts to put them down. Oppressive laws do not destroy minorities; they simply make bootleggers. The Christian Scientists bootleg their magic in Maryland as the Mormons bootleg their guinea-pig

theology in Utah and as the rum-runners bootleg alcohol everywhere.

When a free citizen comes down with cramps he has an inalienable right to send for an osteopath to roll him and thump him if he so desires, and as a necessary corollary the osteopath has a right to perform upon him as long as he can stand it and remain solvent. To argue to the contrary is to argue for the most vicious and idiotic sort of paternalism, and to open the way for unfair practices of the worst kind. But the Christian Scientist, when his child has cholera morbus, has at it with Mrs. Eddy's rubbish, and so sacrifices its life. What if he does? It is *his* child, and if it lived it would simply grow up into another Christian Scientist. There is evil, indeed, in every effort to relieve the stupid of the biological consequences of their stupidity. If the sort of yokels who now dose themselves with Swamp Root were deprived of it by law, and forced to consult the faculty of the Harvard Medical School when they were ill, what advantage would there be in being too intelligent to take Swamp Root? Nature, I believe, is against such interferences with its benign processes, and if they are persisted in it will take some frightful revenge. Luckily, they almost always fail. The Fathers of the Republic, as everyone knows, made the most elaborate efforts to protect its citizens against the just consequences of their own probable imbecility; a complex and apparently fool-proof system was contrived to keep them from putting inferior men into high office. Yet the Jackson revolt of the low orders was in full progress within a generation, and today the First Chief of the nation is Dr. Coolidge.

SOCIAL LEGISLATION

In a little volume, entitled "Social Legislation in Illinois," the social reform workers have summed up what they consider to be the needs of this state at the present time. Some of this legislation might be of benefit to the community at large; but, there is always the danger of injustice that attaches itself inevitably to class legislation. Those benevolent individuals, who become impressed with the evils that one class is suffering from, are too much inclined in their search for a remedy to inflict injustice upon other classes. If a free hand were given to these good people in obtaining the legislation sought for, the result would be intolerable for certain other classes and even, sometimes, for the whole community.

To hold the scales of justice evenly is not an easy matter to the best of us, and seems to be an impossibility to that considerable class of persons who regard it as their mission in life to compel others to think as they do. They become so engrossed with an idea that, for the time being, other equally important ideas are crowded out. The evils that these people are impressed with do undoubtedly exist; but, to remedy an evil by legislation, requires the direction of those who are in a position to have full knowledge of the subject in all its bearings. For reformers to legislate upon a

matter in regard to which their knowledge must of necessity be second-hand, is fraught with danger.

For example, when laymen legislate on health matters against the views of the medical profession, the result is certain to be an injury to the community as well as an injustice to the profession. We have had two glaring examples of this in anti-narcotic and anti-alcoholic legislation. The evils complained of no doubt existed, but the net result has been, to interfere with and hamper the physician and to cause suffering to the patient, while the evil has not been abated but has, in fact, in some ways increased.

If banking laws were drafted and enforced by persons whose knowledge of banking is entirely theoretical, the result could scarcely fail to be disastrous to banking interests, and through them to the whole community. It is the same in matters pertaining to health. It is so absurd as to be all but incredible that physicians should be told by laymen (and laywomen) how they shall prescribe certain remedies. The principle is utterly wrong. When legislation affecting the medical profession and the public health is proposed, the profession is always ready to consider every side of the question, but it claims the right to be heard and to have its own views considered as their importance deserves.

Unfortunately, that is not the way it is usually done. If the views of medical men had received proper consideration before the Harrison anti-narcotic law was passed, we are convinced that it could have been made more effective in dealing with the evils aimed at and, at the same time, less oppressive to medical men and their patients.

To put the matter in a nutshell, the narcotic habit is a disease, and laymen are compelling doctors to treat it as they (the laymen) think it should be treated. In other words, those who know nothing of a science are presuming to dictate to those who have made it a life study. Could anything be more absurd?

In the matter of health insurance, state medicine, health centers, or whatever name may be employed to express different forms of the same idea, there is the same fundamental error. It is based upon erroneous views and mistaken premises. It is *not* a progress in civilized state life, but is reactionary, in that it emphasizes paternal government, which is not the same as centralized government. The latter is necessary for certain phases of community life; the former is a retrograde step under any conditions.

Perhaps the worst feature of paternalistic government is, that it encourages indolence. For example, in the matter of old age insurance and employment insurance; when people find that a paternal government will provide for them, if they do not provide for themselves, it is quite natural that many of them will let the government do it. We have just had an example in England. While the social reformers were praising the success of the law granting an allowance to the unemployed, the cable brought the news that, in

wages of those at work. Could anything be more demoralizing?

No, human nature is not yet sufficiently altruistic, or, rather, not yet sufficiently honest to make such a law workable. If idleness pays better than work, then why work? A very large proportion of the people are still so undeveloped morally that, just as soon as they feel certain that they will be cared for in old age, they say: "Why should I deny myself in order to save for a rainy day? Why not enjoy my money as fast as I earn it? I shall not be allowed to suffer. I should worry!"

We have always as many of the unfortunate poor as we can take care of without adding to their numbers by putting a premium on improvidence and lack of thrift. Who will save against old age if he knows that it is not necessary?

Another principle is ignored in much of the proposed social legislation, both state and national. In a land of true liberty, there can be no interference with the right of the individual to choose his own medical adviser, nor with the right of the physician to prescribe as he sees fit. The only exception to this rule is in cases of certain contagious diseases where the necessity of quarantine is involved or in prescribing for criminal purposes.

A bill recently passed in Congress, which received the support of the President, violates this principle. It inflicts a wrong upon the medical profession as well as upon the public. Every citizen is taxed for the purpose of maintaining another government bureau to dictate to the citizen in one of the most distinctly personal phases of life—that of maternity. The Shepard-Towner bill is so awful a bit of legislation that it is difficult to conceive how any level-headed Americans could have seriously proposed and supported it.

This problem of legislation involves many difficulties, but, one point seems clear: We must in some way wake up the interest of the rank and file of our profession to the threatened dangers. There is no substitute for watchfulness. Too many of us are quite unconcerned until it is too late.

We must have representative men of energy and ability to watch legislation, both at Washington and at the state capitals, who can give warning when action of any sort by the profession is needed, and these warnings should go to all doctors whether members of the societies or not. A powerful influence for good would be exerted if every doctor in the land were to write to the legislators from his district whenever health legislation was proposed, giving his views briefly and temperately. We must never forget for a moment that the interests working against us maintain active lobbies well supplied with funds. They can never be accused of indifference, while we, unfortunately, can. We need to wake up and keep awake.—*Clinical Medicine*.

WHY THE INCREASE IN TWIN BIRTHS?

The Paris correspondent of the *American Medical Association Journal*, under date of August 8, 1924, says:

Recently Professor Cristalli of Naples called attention to the surprising increase in the number of multiple births occurring at Naples during and since the war. Is this phenomenon sporadic, or at least confined to the Italian peninsula; or is it, as Cristalli seems to suppose, a general finding observed in all the countries that took part in the World War? Dr. P. Balard, "obstetrician to the hospitals of Bordeaux, has endeavored to establish the truth with reference to that city by collecting statistics on the number of twin births that have occurred there during the last ten years.

Twin Births Occurring in Bordeaux, 1913-1923

Years	Twin Births	Total Births	Twin Births per 1,000 Births
1913	7	4,201	1.66
1914	22	4,130	5.32
1915	17	3,179	5.34
1916	23	3,019	7.61
1917	22	3,711	5.92
1918	18	3,915	4.59
1919	26	4,092	6.35
1920	39	5,944	6.56
1921	37	5,655	6.54
1922	32	5,021	6.37
1923	37	4,875	7.58

1913, there were, quite regularly, around six twin births per thousand births. At Naples, however, the proportion, which was about three before the war, rose steadily to 8, 9, 12, 17, 26 and 29 per thousand births.

To what cause or causes may this difference be ascribed? In explanation of the remarkable increase in the number of twin births at Naples, Cristalli refers to the changes in the family life during and after the war—the privations to which the women were subjected; the different nature of the food, with its progressive and lasting reaction on organic metabolism, since it is an established fact that the birth rate is in inverse proportion to the degree of well-being that characterizes a given social group, as if Nature tended to reestablish the demographic equilibrium and to preserve the race among poor people with an unusually high infant mortality. It may well be asked to what extent this interpretation seems to hold good. Balard notes that, in Cristalli's statistics, it is especially since 1918, and particularly in 1920 and 1921, that the number of twin births is exceptionally high. It would seem that by that time the influence of war restrictions would have ceased to be felt. Cristalli takes no account of the possible influence of syphilis on twin births. Leaving this factor out of account, it would seem, if we accept the theory advanced by Cristalli, that the twin births must have remained practically stationary in most parts of France as they did at Bordeaux, for at no time during the war did French women have to undergo such food privations as would have any appreciable effect on their metabolism.

BIRTH CONTROL: AN UNSOLVED PROBLEM

Morris Fishbein, M. D., in *American Mercury*, says: In his presidential address before the American Medical Association last June, Dr. William Allen Pusey devoted himself to the subject of the limitation of population, and brought to the support of an argument for birth control most of the familiar facts about the impossibility of supporting the population of the

future on the land of the present. "If no effort is made at birth control," said Doctor Pusey, "nature will take charge of the situation by eliminating those less able to resist." Continuing his argument, he cited the contention of the economists that those people inherit the earth who multiply most rapidly, and that fecundity increases inversely according to the individual's position in the social scale. It seemed to him, as it has seemed to others, that this means the downfall of modern Christian civilization, with the triumph of the misery and degradation of Asia. "I particularly desire," he concluded, "that the mistaken impression should not go out that I mean to say that medicine now has any satisfactory program for birth control. It has not."

In the tomes of the ardent economists, biologists, sociologists and philosophers who favor birth control the eager reader will also search fruitlessly for any practical program, or, indeed, for any practical method. His disappointment will not, moreover, depend entirely on the fact that our government, either wisely or unwisely, has made unlawful the dissemination of such knowledge as is available. The fact is that none of the students of the problem, not even the physicians, have ever perfected any method of birth control that is physiologically, psychologically and biologically sound in both principle and practice. Not, of course, that devices for the prevention of conception do not exist; it is well known that they do, and that they are easily available to almost any purchaser in any drug store in America. The difficulty lies primarily in the imperfection of the devices themselves, and in the peculiar psychology of that lower stratum of society which the birth control enthusiasts insists must be brought to the light, lest its descendants inherit the earth.

Every practical psychologist knows that such folk are not at all interested in the welfare of the United States as it may be one hundred years from now. The desire to plan for posterity—and that posterity not of the next succeeding generation, but of four generations ahead—connotes a high order of intelligence and public spirit. The impulse to sacrifice the pleasure of the moment for the profit of a far-removed future is within the moral scope, and always will be, of very few men, and perhaps of an even smaller number of women.

But more important than this lack of altruistic imagination is the lack of any sure device for birth control. Of all those at present available, the most ancient and most certain of all is that of simple continence. The chaste man or woman, obviously, never has a child. It is the contention of many religious and prudish persons that this continence is the only aid to the limitation of offspring that is approved by moral law. It is, on the other hand, the belief of most modern psychologists, and especially of the Freudians, that absolute continence in the presence of continuous temptation, such as must inevitably appear in the case of marriage between two persons who have for each other a profound affection, produces effects on the mental life and the daily behavior that are

not conducive to a peaceful and healthful existence. Continence is hardly likely, therefore, to appeal to the more intelligent members of the community. And it is only by the more intelligent members of the community that one may expect it to be practiced at all! The visible result of its impracticability among less reflective persons is apparent in the very fecundity which Doctor Pusey deplored. Even recognizing the fact that the long and piteous documents from working women printed in Mrs. Margaret Sanger's *Birth Control Review* are especially selected because they are long and piteous, they may be considered nevertheless as evidence that continence does not work among the poor.

As everyone knows, there are short periods in the life of a woman, recurring regularly, in which the likelihood of conception is less than at other times. These are, however, so indeterminate, and the modifying factors are so many, that those who have attempted to rely on them to limit their offspring have been invariably surprised at their failure. All the remaining methods now in use are mechanical and chemical. Do they work? Recently the best authorities available in Great Britain conducted a symposium on the subject. It was the general verdict that all were unsatisfactory, although a majority agreed that a commonly known device, invented some centuries ago by an Italian named Fallopius, was better than the rest. The percentage of efficiency of the latter varies from ten to somewhere about ninety per cent; none of them is perfect. Moreover, some of them may produce irritations of the tissues and grave consequences, including cancer. Little need be said here of their psychological effects.

One of the difficulties of arriving at a satisfactory formula for killing any sort of organism within the human body lies in the fact that any solution that is sufficiently strong to kill it is also sufficiently strong to irritate and destroy the living body cells. So with all the chemical substances thus far proposed for destroying or inhibiting the activity of either the ovum of the female or the sperm of the male. Practically all such substances are subject to the charge that they are too weak to be efficient, or so strong as to be distinctly injurious to the tissues, especially if used frequently. On such devices there is never any agreement. Each of the chief advocates of birth control has some method which he or she considers the ideal. But the fact that Mrs. Sanger, Mrs. Stopes, Miss Rout and Miss Bocker do not agree should be sufficient evidence in itself that the ideal has not been reached.

Little is said by such propagandists about the psychological aspect of birth control, but this is obviously a matter of the greatest importance. The psychological factor, indeed, is largely responsible, not only for the frequent failure of all the common devices when applied under even the best of conditions, but also for the reluctance to utilize them, imperfect as they are, in the lower ranks of society. It would be possible here, if this were a popular, rather than a scientific, consideration of the subject, to picture a nocturnal scene between a male of the lower stratum, somewhat

stimulated by alcohol, and the feminine partner of his misery, weary after a day at the washtub or scrubbing the halls of an apartment house. The mental states of the two, it must be plain, are hardly such as to lead them to pause for a consideration of their own difficulties, much less of the economic problems of the Twenty-first Century. The stimulated emotions of the male, coupled with the fatigued inhibitions of the female, are little likely to encourage a recourse to complex mechanisms in the name of humanity.

Medical science is not yet satisfied with the achievements of its investigators in this field. Research workers are still seeking methods which are scientifically safe and psychologically satisfactory. The two devices to which most attention is being given at this time involve the use of the x-rays and of the biologic process involved in the creation of immunity. It has been shown that exposure of the ovary in the female or of the testis in the male to a sufficient dosage of x-rays results in atrophy or deterioration of the tissues, and so causes permanent sterility. But the human tissues vary so greatly in resistance and the dosage of x-rays sufficient to produce the required effect without also producing other and much more harmful effects is so difficult to calculate, that the method is not as yet practical.

The other method has been the outgrowth of experiments by such investigators as Guyer, Dittler, Metchnikoff and McCartney. A proper understanding of it involves a knowledge of the biologic mechanism within the human body which results in the production of immunity to disease. It is known that a person who is infected with certain diseases develops resistance to future infection with those diseases by the creation within his body of antagonistic substances. In the same way, the injection into the body of certain chemical substances causes it to build up a defense against them. It therefore occurred to the investigators named to find out whether or not the female organism might be immunized against the sperm cell of the male. They were supported in their belief that it might be so immunized by observations which seemed to indicate that the female tended in time, under the ordinary process of exposure, to develop immunity to the male sperm. It is known, for instance, that the liability to become pregnant is much more greater during the early years of marriage than in the later years. It is known also that there is little tendency to become pregnant among prostitutes, and that this fact is not altogether the result of the chronic venereal infections to which this class is subject. Finally, it was observed that there was a subnormal tendency to pregnancy in periods following unusually frequent exposure.

The investigators prepared extracts and other preparations of the sperm cells of various animals, such as rabbits, albino rats and chickens. These were injected into females and careful observations were made to determine whether or not they had any effect on fecundity. It was found that a definite effect did appear. Female albino rats injected with the sperm of the male remained sterile for a period of from two to twenty-two weeks beyond the normal

gestation time, although their normal sexual cycle and behavior seemed to be in no way altered. These experiments were carefully controlled by injecting an equal number of rats with salt solution or other innocuous material.

Obviously, if science is able to develop some such method as this, which will permit the production of sterility in individuals of the lower stratum with their own consent, which will be renewable after a definite period, and which will not depend for its effectiveness on any mental or physical action of the persons concerned at the time of sexual activity, a feasible method of birth control will have been found. But certainly we cannot be said, as yet, to have reached any such method.

CHANGES IN SEX MORALITY AMONG WOMEN

The *Journal of Social Hygiene* has an article on the "Changes in Sex Morality Among Women":

Has the wider acceptance of the single standard of morals brought with it a greater degree of chastity among men or has it meant largely a loosening of the stricter code of sex morality formerly applied to women? Many recent writers incline to the latter view, even those who agree that the slogan "Down with the double standard" was intended at first to signify a raising of the male, rather than a revolutionary changing of the female standard. In *Current History* (November, 1923) Alyse Gregory, writing on "The Changing Morality of Women," calls this looser moral attitude in women "a state of affairs the existence of which can no longer be denied." She traces standards through the Middle Ages and the Victorian Era and, after describing changes brought about through the invention of machinery, she closes her discussion with a few paragraphs on the effect of the war and on the "more tolerant standards" now prevailing. Of the after-war period down to and including the present, the author says, "However unwilling one may be to acknowledge it, girls began to sow their wild oats. Women of the aristocratic upper classes and the poorest women had never followed too rigidly the cast-iron rules of respectability because in neither instance had they anything to lose by digressing. But for the first time in memory of man, girls from well-bred respectable families of the middle class broke through those invisible chains of custom and asserted their right to a nonchalant, self-sustaining life of their own with a cigarette after every meal and a lover in the evening to wander about with and lend color to life. If the relationship became more intimate than such relationships are supposed to be, there was nothing to be lost that a girl could not well dispense with. Her employer asked no questions as to her life outside the office. She had her own salary at the end of the month and asked no other recompense from her lover than his love and companionship. Into the privacy of her own snug and pleasant rooms not even her mother or brother could penetrate, for she and she alone, unless perhaps one other, carried the only key that would fit the lock."

That this picture is a limited one, however, she now admits, and one of her conclusions is that many, even those who now revel in the new freedom, will find marrying worth while. This is not to imply that over vast stretches of the United States, and certainly in the small towns and villages, young girls and women in bourgeois homes are not living lives of impeccable chastity, but in the great cities, in those circles where women from twenty-five to thirty-five can control their own purse strings, many of them are apt to drift into casual or steady relationships with certain men friends, which may or may not end in matrimony. Undoubtedly in time these men and women will rediscover that monogamy has after all its many advantages, but it is unlikely that the western world will ever again ask of women that strictness in behavior which it has never demanded from men. On the other hand, certain unfair privileges still accorded her under the law, will undoubtedly be changed, as will those laws which discriminate against her.

ARSPHENAMINE VS. NEOARSPHENAMINE.

Raiziss, et al., in *Clinical Medicine*, recognize that on the question of choice between arspenamine and one of its derivatives there is a difference of opinion. The chief determining factors should be the chemotherapeutic index (relation of maximum tolerated dose to minimum therapeutic dose) of the particular drug employed and the manner in which this drug is clinically tolerated. On this basis, in our estimation, neoarsphenamine is to be preferred. A single dose of 0.9 gm. neoarsphenamine is generally considered the therapeutic equivalent of 0.6 gm. of arspenamine—the latter, however, being two to three times as toxic as the former. Arspenamine contains about 30 per cent arsenic while neoarsphenamine contains about 20 per cent. All things being equal, we believe that therapeutic agents with decreased arsenical contents are more desirable. Although comparisons of the drug effects, in parallel stages of syphilis over a given period, have indicated that neoarsphenamine necessitates generally a third again as many treatments as arspenamine, there is this compensation: there is much less likelihood of toxic disturbance, and treatment in many cases may be prolonged—a thing admitting of more satisfactory end—results. Again, the chemotherapeutic index of neoarsphenamine, due to improvement in its manufacture, has been increasing and is considerably higher than that of arspenamine. Thus, because the newer arsenical is

less toxic and therefore less likely to produce reactions, and also because the technic of its administration is simpler, physicians throughout the world are using more neoarsphenamine than arspenamine. There are, however, some prominent syphilologists who believe arspenamine to be more efficient than neoarsphenamine and therefore prefer to employ it, in spite of its admittedly higher toxicity.

The advantages of neoarsphenamine may therefore be summed up as follows:

1. It is a neutral compound possessing about the same hydrogen-ion concentration as the blood. Its injection into the blood stream, therefore, causes less biochemical disturbance, both in the blood and tissues, than the strongly alkaline solution of arspenamine, the hydrogen-ion concentration of which is different from that of the blood.

2. Neoarsphenamine in the ordinary concentrations employed is not hemolytic, except in very dilute solutions or in extremely concentrated solutions, while arspenamine is hemolytic in virtually all concentrations in which it is used.

3. Neoarsphenamine is more rapidly soluble and may be used in much greater concentration; consequently, the solution may be given in a glass syringe. Arspenamine, on the other hand, is given from a burette by the gravity method. The preparation, too, and the technic are much less elaborate in neoarsphenamine and the possibility of error, therefore, is less.

4. Neoarsphenamine, experience demonstrates, is tolerated by the patient much better than arspenamine. Reactions are both rarer and milder, when they do occur, and, consequently, interruption of treatment is less likely.

5. Neoarsphenamine is almost invariably preferred by the patient, since there is less pain, less trauma (finer needle), risk, reaction and time consumed.

The newer methods of treating syphilis have been employed little more than a decade. Sufficient time has not elapsed for the development of a crystallized therapeutic program acceptable to the great majority of syphilographers. The selection of the remedy, the dosage, the frequency of administration, the number of treatments in a course, the number of courses, etc., are all matters determined by the physician for

himself. Certain general propositions, however, have been suggested by those who have had the widest experience in the treatment of syphilis.

ACCIDENT FROM X RAY RAISES NO PRESUMPTION OF NEGLIGENCE

The Pennsylvania Supreme Court holds, *Nixon v. Ffahler*, 124 Atl. 130, that the rule that an action against a physician for malpractice can be sustained only by proof of his negligence, and that the burden of such proof rests upon him who asserts it, is not changed because the practitioner uses an x ray instrument. The plaintiff, while having x ray photographs taken of her teeth in defendant's offices, was injured by an electric spark which struck her right knee and passed down and out at her foot. What caused the electric current to leap from the wire through the air to the patient's leg, as it seemed to have done, was unknown, and there was no evidence that such an accident could have been anticipated, or that it resulted from any fault of defendant.

"The x ray machine," the court said, "is indispensable to the healing art, and the mere happening of an accident from its use creates no presumption against the instrument or its operation. It is necessary for those engaged in the medical profession constantly to employ dangerous agencies, like electricity, radium, surgical instruments, poison, anesthetics, etc., and if prima facie liability attaches for an accident resulting from the use of one, logically it should from the use of any other, and the practitioner employing such would be practically an insurer of the safety of his patients, which the law declares he is not. The question of liability does not hinge upon the dangerous character of the agency employed, but upon the manner of its use, as to which the presumption of due care is in favor of the practitioner, until overcome by evidence to the contrary."

ANESTHETIST NOT LIABLE FOR CARELESSNESS IN OPERATION

The Kentucky Court of Appeals holds, *Jett v. Linville*, 259 S. W., 43, that, since it is a well established rule in surgical operations that the anesthetist is directly chargeable with the physical condition of the patient in the operating room, and his attention must always be directed solely to administering the proper amount of the anesthetic and continuing its supply in just such proportions as will insure the patient's remaining in a comatose condition while the knife is being used, he cannot be held responsible for any alleged carelessness in the operation, in which he did not take part.

MEDICOLEGAL AND OBSTETRICAL OBSERVATIONS ON SCOPOLAMINE ANESTHESIA

House (*American Journal of Surgery*, October, 1923) holds that morphine inhibits the progress of scopola-

mine anesthesia in obstetrics. The former drug is entirely unnecessary, and indeed is contraindicated when combined with scopolamine. The method of administration of scopolamine is as follows and is described as the Florence-Rosser method:

When dilatation is manifested gr. 1/130 scopolamine plus apomorphine gr. 1/50 to 1/60 are given. If pains are fast, wait for the duration of fifteen minutes; if pains are slow, wait twenty or thirty minutes to inject scopolamine gr. 1/200. Chloroform is then administered, the patient being directed to count during inhalations, which are continued until the patient can no longer count. When the chloroform is removed the patient passes into the stage called amnesia. If the stage of amnesia is not satisfactory the chloroform is again administered and the patient asked to count. The number reached tells the condition of the mind and guides the selection of the next dose of scopolamine.

The small amount of chloroform required and the intervals between its use makes it a minor issue. The baby will be as drowsy as the mother. To prevent the blue baby one-eighth of a grain of strychnine sulphate is injected into the abdominal muscles of the expectant mother five minutes before delivery is anticipated. When the head passes over the perineum a few inhalations of chloroform are again given. Scopolamine gr. 1/60 is the limit of safety.

OUR OWN BODIES

"You know the model of your car;
You know just what its powers are.
You treat it with a deal of care
Nor tax it more than it can bear.
But as to self—that's different;
Your mechanism may be bent,
Your carburetor gone to grass,
Your engine just a rusty mass.

Your wheels may wobble, and your cogs
Be hauled over to the dogs.
And you skip and skid and slide
Without a thought of things inside.
What fools, indeed, we mortals are
To lavish care upon a car
With ne'er a bit of time to see
About our own machinery!"

—John Kendrick Bangs.

NOT IN THE THREE HUNDRED CLASS

Pædaretus, when he was not elected to be one of the three hundred (which was the highest honor and office in the city), went away cheerfully and smiling, saying he was glad if the city had three hundred better citizens than himself.—*Plutarch*.

LEARNING TO MILK THE COW

Farmer: "Now, come along and I'll teach you to milk the cow."

Cockney Hand: "Seein' I'm new to it, Mister, hadn't I better learn on the calf?"—*London Opinion*.

Original Articles

THE DIAGNOSIS AND TREATMENT OF CHRONIC OR LATENT TONSILLITIS

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Chronic or latent tonsillitis frequently occurs in association with chronic infection of the roots of devitalized teeth, pyorrhea, or sinusitis. Although acute tonsillitis occurs more frequently in the young, the systemic manifestations of chronic or latent or tonsillar infection are more usually observed at or after middle age.

Chronic or latent tonsillitis may exist twenty or more years and may, for certain periods, be absolutely local, with no systemic manifestation. Frequently these periods are not truly local, but are latent, as toxins or micro-organisms are entering the blood without producing diagnostic symptoms. These periods of latency alternate with periods of obvious systemic infection.

Latent tonsillar infection is very apt to become active when any intercurrent infection or disease occurs, such as influenza, typhoid fever, pneumonia, diabetes, cardiac or renal decompensation or any condition that reduces the defense system of the body, such as malnutrition. Perhaps the commonest of all causes is an intercurrent infection.

The tonsils may be considerably or moderately hypertrophied, small in size or buried. The anterior and posterior pillars are frequently adherent to the tonsil and the anterior surface of the anterior pillars often present a dark red, congested appearance.

When infected tonsils are subjected to pressure, some yield no secretions, others show a cheesy or thin milk-like fluid which, when cultured, usually reveals the streptococcus hemolyticus or viridans. The crypts are frequently dilated, and when emptied, and material secured from the bottom by a platinum loop is cultured, the streptococcus hemolyticus or viridans may be obtained in pure culture. Similar organisms may be obtained from the surface of the tonsils, from the bottom of the spaces between the tonsils and the anterior and the posterior pillars. The pathogenicity and specificity of these organisms may be determined by animal experimental

tion. The blood serum on examination may show varying degrees of immunity or susceptibility to the infective organism. Hemolytic streptococci have been found in the enlarged lingual tonsils and in diseased glands in the posterior walls of the pharynx. A negative culture may be due to the closure of crypts by adhesive inflammation or because the infection is a circumscribed intra or retro-tonsillar abscess.

The small, buried, fibrotic tonsil may give no evidence of infection, and the diagnosis of its infectivity may rest entirely upon the exclusion of all other foci of infection, together with the clinical and leucocytic manifestations of systemic infection. Occasionally the only diagnostic sign is lymphocytosis, poly-nuclear decrease and leukopenia. Infected tonsillar tissue remaining after a tonsillectomy, even though no larger than a split pea, or unremoved infected glandular tissue in the region of the plica triangularis, may produce the same clinical manifestations as an infected tonsil.

Usually, chronic or latent tonsillar infection gives a history of one or more attacks of acute tonsillitis, although occasionally no such history is obtainable, either because the infection was chronic from the beginning or the patient has forgotten that an acute attack had occurred. When the tonsil is infected by contiguity from pyorrhea, around the third lower molar, or the patient may suffer no attack of acute tonsillitis. Whenever possible, tonsillectomy should be performed after the removal of pyorrhea or sinusitis. As a rule, when recurrent acute tonsillitis has occurred, even though twenty years has elapsed since the last attack, the tonsils should be suspected of being infected until proven innocent.

The presence of enlarged, indurated and painless cervical glands aids in diagnosing chronic or latent tonsillar infection, but they may be so situated as not to be detected by palpation. The most common clinical manifestations of chronic or latent tonsillar infection, more or less, in the order of frequency, are arthritis, periostitis, tenosynovitis, myositis, chronic myocarditis, endo or pericarditis, endarteritis, neurasthenia, psychoneurasthenia, psychoses, neuritis, cholecystitis, cholelithiasis, hepatitis, hepatic insufficiency, intestinal toxemia, nephritis, pyelonephritis, renal calculus, peptic ulcer, and infective processes involving the eye, ear, skin, respiratory or genital

*Read before the annual assembly of the Tri-State District Medical Association which was held at Des Moines, Iowa, Oct. 29, 30, 31 and Nov. 1, 1923.

organs. When a vital organ is involved, such as the heart and kidneys, and reasonable clinical evidence exists that it is infective in origin, more especially if the polynuclear cells are decreased, with lymphocytosis and leucopenia, and no other focus of infection is discoverable, the tonsils may be removed on suspicion. A pathological and bacteriological examination of the excised tonsils will establish the correctness or incorrectness of the procedure.

In more than one-half of the cases of chronic tonsillar infection, there is a well marked increase of the small lymphocytes, a corresponding decrease in the polymorphonuclear cells, and a decrease in the number of leucocytes per c. m. m. Anemia or chloroanemia usually coexists. This diagnostic picture may be the chief or only evidence of chronic or latent tonsillar infection, and indicates that toxins or micro-organisms or both are entering the blood. If this diagnostic blood picture permanently disappears after tonsillectomy, it proves that all infection has been removed; if, however, it returns after a temporary absence, it proves that a focus of infection still exists.

The following is an abstract of a typical case of chronic tonsillar infection illustrating the difficulty of diagnosis: Maiden lady, aged 70, weight 81 pounds; marked asthenia, chloroanemia, relieved by removal of dental foci of infection. A few months later, symptoms recurred. Tonsils small, buried, and almost invisible, and a laryngologist stated they were normal. No history of previous disease of the tonsils. As the differential leucocyte count showed lymphocytosis, a moderate polynuclear decrease and leukopenia, infection was believed to be present, and as no other focus of infection could be discovered, the tonsils were removed on suspicion, and showed haemolytic streptococci. The patient's recovery was solely due to the recognition of the diagnostic importance of lymphocytosis, polymorphonuclear decrease and leukopenia.*

THE TREATMENT OF CHRONIC TONSILLAR INFECTION OR REMNANT IS COMPLETE SURGICAL REMOVAL

In inoperable cases of infected tonsils, the septa of the crypts may be divided so as to favor

drainage. Any antiseptic, such as iodine or Dakin's solution, may be employed to irrigate the crypts after they have been thoroughly emptied by compressed air or liquid. The x-ray properly applied, in proper doses, at proper intervals, sometimes causes a reduction in the size of the diseased tonsils and may reduce infectivity, and should be employed in conjunction with local treatment.

A properly made autogenous vaccine is of value in the senile, the debilitated, and those in whom resistance is lowered from any cause. In healthy, young adults, with no complication, vaccines are usually unnecessary.

Summary of the diagnostic evidence of tonsillar infection, in the order of importance.

1. The appearance of the diseased tonsils; adhesion of the pillars to the tonsils. Dark red, congested appearance of the anterior face of the anterior pillars.
2. A thin milk-like secretion obtained from the tonsils by expression, containing pathogenic organisms, usually the streptococcus hemolyticus or viridans. Pathogenic organisms, usually the streptococcus hemolyticus or viridans especially when secured from the bottom of the spaces between the tonsils and the anterior and posterior pillars, or from the bottom of a crypt.
3. Clinical evidences of infection.
4. Lymphocytosis, polymorphonuclear decrease, leukopenia, usually in association with anemia.
5. History of recurring tonsillitis or tonsillectomy.
6. Enlarged cervical glands.

317 South 18th Street.

THE INFLUENCE OF MECHANICAL PRESSURE ON WOUND HEALING*

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In much of the reparative surgery the operator will be tremendously handicapped until he realizes that the satisfactory result is more dependent upon intelligent application of the older surgical principles than upon an aseptic technic as ordinarily interpreted, though the latter is never

*Lymphocytosis, as a diagnostic sign of chronic periapical dental infection in adults. *Journal A. M. A.*, October 22, 1921. Page 1308.

*A Resumé of the Oration of Surgery delivered at the annual meeting of the Illinois State Medical Society, May 8, 1924, at Springfield, Ill.

to be disregarded. A consideration of the bearing of one of these older principles to this type of surgery will be a much more fitting and profitable subject to present for your consideration than any technical tricks or possibly out of the ordinary cases that might be at my disposal.

The maintenance of a definite external surface pressure is essential not only to the life of the body but also to the proper functioning of the various organs. The movement of the contents of the alimentary canal, the circulation of the blood and the respiration of air are all dependent upon differentials of pressures. Special provision has been made for maintaining the tension of the muscle sheaths and of the abdominal and thoracic parietes; greater or less disability will follow a disturbance of these mechanisms. In dealing with the pathological results of such disturbances, artificial pressure has long been recognized as one of our most important resources; therefore, we use the truss or the abdominal binder to compensate for a hernia or bandage the leg for varicose veins or for lymph stasis. In the healing of wounds, it is one of the great helps which we may add to the natural reparative forces. Where a disturbance of the pressure balance within the tissues is complicated by an infection, there is no chemical or emollient that has the antiseptic value of properly applied mechanical pressure as illustrated by the efficiency of complete circular strapping of the leg for a varicose ulcer or the application of a firm pressure dressing to any granulating surface.

The application of most any dressing produces pressure, but he who employs this pressure in a selective, purposeful manner will get bigger returns than he who applies it incidentally or even as a matter of routine.

There are chiefly four basic things to be gained by the use of properly applied mechanical pressure to wounds:

The elimination of dead spaces.

The control of oozing.

The limitation of venous and lymph stasis.

Limitation of the amount of plastic material that pours into the wound.

In wounds about the face and mouth the above factors combine to form a much more efficient preventive of sepsis than the most painstaking attempts at an aseptic technic.

The amount written in the previous two decades on the technic of the "Thiersch" graft would fill volumes, no small part of this being related to the after cure and dressings. Our observation leads us to believe that properly applied and maintained pressure is the one essential and that it will usually neutralize the possible effects of accidental wound contamination; that size, thickness and the location of the graft are matters of little relative importance. Without stopping to trace the development of this plan of grafting, it is sufficient to mention that if one or several pieces of "Thiersch" graft containing one or ten square inches of epidermis are wrapped, raw surface outermost, on a wax form and buried in the floor of the mouth, as high a percentage of perfect "takes" may be expected as with any graft applied to a surface with the most elaborate technic. The wax form must be of the proper size and shape and must be sutured in under proper tension, but, on the other hand, salivary contamination apparently may be disregarded. In applying "Thiersch" grafts to a recently made clean raw surface, to a granulating surface, or one from which the granulations have just been cut the use of well controlled pressure is our main reliance to insure the best chances of a good result. An explanation of the freedom of sepsis under this treatment may be that the close contact maintained between the raw surfaces of the bed and of the graft permits of the efficient tissue action upon the bacteria and their products. This is in no way meant to belittle the value of the standard aseptic technic but rather to emphasize the fact that, in the healing of wounds, the latter is not the only adjuvant at our disposal.

An attempted aseptic technic combined with pressure dressing has not always saved our grafts but in the comparatively few instances where failure of the graft has been due to sepsis there has been a strong suggestion of an auto-inoculation. The patient in almost every instance has been the subject of active septic lesions in some more or less remote parts of the body at or shortly before the application of the graft. On the other hand, the number of cases in which success has followed the implantation of free grafts in non-sterile fields is now fairly large and I believe that in this success properly applied mechanical pressure was an essential factor.

Our technic for using the full thickness skin graft was at first based on two premises; first, that if the transplanted skin were sutured at its normal tension or at slightly plus tension the cut ends of the cutaneous vessels would remain open and would more quickly take up a blood supply; the second, that as each particular part takes its blood supply from the immediately subjacent tissue, the only logical limit to the size of a graft would be the amount of operating and hemorrhage the patient could stand. Subsequent experience justified both of these conclusions, but very soon after these two hypotheses were put into practice it became evident that there were additional factors of almost equal importance that still remained to be catalogued. The first of these stumbling blocks was a fact long ago recognized in dealing with large, thin flaps; that it is one thing to have blood supply and quite another to have an adequate venous return. In the first several of our cases the full thickness grafts were applied to the bridge of the nose or to the forehead. In the former the tension of the sutures drawing the graft over a curved firm surface, and in the pressure of the bandage that held the dressing, both helped to limit the amount of blood that could stagnate in the skin while the new venous return was being established. It was not until the attempt was made to place a large graft on the cheek were we forced to conclude that in the previous cases good luck had outrun calculation. In this particular case the retaining dressing were removed at the end of two days for fear mouth secretions might seep under them and the newly adherent graft was left exposed. Within a few hours the pale pink skin became deeply blue and repeated scarifications, carried on night and day, and citrate of soda packs failed to save us from the painful necessity of explaining to the patient the loss of 7/10 of a 3x4 inch graft. That part of the graft survived which lay over a wax form in the hollow of the cheek which furnished counter-pressure to the bandage that held the pack in place.

Based on this experience a marine sponge pressure dressing was evolved which, if carefully applied and made of sponges of proper quality, will maintain an even pressure over an irregular surface or one without underlying bony counter-support. Further use of this pressure dressing

demonstrated an unforeseen virtue and an inherent danger. It permits of the application of the graft over a freshly made raw surface, such as results from the removal of a scar, without tying any but large vessels, but if the pressure is too great, especially over a bony prominence such as the outer part of the supra-orbital ridge or dorsal surface of the middle metacarpal bone, it can kill the compressed area by ischemia. Maintenance of the proper pressure for four or five days will prevent the graft dying from engorgement, but its early discontinuance favors the formation of blebs which latter may lead to another catastrophe. The blebs are apt to become infected; continuance of the sponge pressure for several days longer helps to control the formation of blebs.

The common plan of transplanting rib cartilage into the bridge of the nose is through an incision made within the nostril. A high percentage of "takes" follow this procedure compared with the frequency with which apparent breaks in "technic" occurs. This suggests that here too pressure from the elasticity of the skin or of superimposed padding may have some influence on the average outcome.

In the preparation and transplantation of pedicle flaps one of the most disastrous incidents is the failure of union of the flap to its original or its new bed and one of the most efficient preventives, even in the presence of a moderate amount of contamination, is evenly applied pressure. The safest and most efficient plan of applying this is the incorporation in the dressing of one or several large, soft marine sponges that have been wet, rung out in a twisted towel, and immediately bandaged in place. It is particularly useful where the graft is bedded on a surface of irregular topography and consistency. To a less certain extent this sponge pressure can help to control venous stasis which threatens the vitality of the flap.

These observations are backed up not only by our experience but also by that of the general surgical service where the marine sponge pressure dressing has been adapted for holding the skin flap up in the axilla after a radical breast amputation. We have found it equally efficacious in maintaining contact after extensive neck dissections.

In applying this sponge pressure one must

use his surgical sense to gauge the desired tension but he can use it with the assurance that he has more leeway in making this pressure than with any other padding substance with which we are familiar.

MENTAL HYGIENE: THE OPPORTUNITY FOR THE FAMILY PHYSICIAN*

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The fundamental principle of mental hygiene is to detect any early deviations from a normal condition. This is the opportunity of the family physician. If he is well trained he knows at least when he needs counsel and where to go. If he has had experience, he is likely to be keenly alive to the hopefulness of the present forward movement in the mental health of children.

Mental hygiene is not spectacular. There must be an appreciation of the problems involved in order to enlist attention. A broken bone or a ruptured appendix is an obvious problem. The problem of a functional nervous disorder or a bad mental habit is just as real. We are weary of hearing "It is only my nerves." What can be more fundamental than illness of the integrating apparatus which controls life?

Mental hygiene is essentially preventive medicine. And preventive medicine is largely educational. Half the business of the family physician is pedagogic. It is not too much to ask that the family physician make it quite plain to his patients that mental health is an equilibrium of feeling, thinking, doing; that mental health involves a good environment during the formative period of childhood added to a good inheritance, and coexistent with training in conscious choice of that which makes for good.

Recent conferences on mental hygiene, the rather frequent recurrence of the theme on medical programs, and the popular lay articles indicate the growing consciousness of the value of mental health. Most important are the research institutes which are making a definite inquiry into the causes and remedial measures.

The sources of our information in searching the way by which we shall secure mental health are many, including the hospitals for the insane, feeble-minded and epileptic; correctional insti-

tutions, schools where is found the problem child; social agencies, as community centers, industrial workshops, recreation groups; and finally the "crank," the "fool" and the "queer folk" at large.

The general practitioner gets the first chance at most of these, because he is called to give relief. If he knows as much psychology and psychiatry as he does anatomy and chemistry, he is in a position to follow up and relieve the patient mentally ill, or refer such to the specialist who may be better able to direct treatment.

The statistics of the increase of the insane, feeble-minded and epileptic, the appalling increase of crime, the inadequacy of housing quarters and occupation therapy in the best of them, and the horrid degradation in the worst of them is well enough known to you all, if you have as much as walked through institutions of each type.

Illinois pays a quarter of her taxes for insane, charitable and correctional institutions. New York pays a third. There are probably as many patients at large needing medical care as are in institutions. The Chicago Psychopathic reviews twice as many patients as the Boston Psychopathic with a staff less than half. In consideration of this large group of incompetents, there is no other acceptable solution for the future than to deny to them reproductive ability.

Once committed to a hospital, the medical responsibility is transferred from the family physician to the staff. But the physician comes intimately into contact with the next group, that of the court. During the past three months a group of boys between the ages of 12 and 18 have been brought into the Juvenile court three times for stealing automobiles. Probably any day's record there will duplicate it. The majority of delinquent cases come from abnormal home relationship.

The next group is too young for the Juvenile court. A boy of 11 in one of our grade schools led a gang of seven, entered the building and stole \$85 worth of school property. There is a corps of good teachers, a clean school yard, a hot five cent luncheon, but the dirty alleys and streets give no sign of a municipality practicing good civics. And many of the homes carry no incentive to honesty.

Chief Justice Olson in his reports from the Municipal court and in his public addresses re-

*Address before Chicago Medical Society, April 30, 1924.

veals the steps by which he has come to realize that defective intelligence or defective emotion, or both are responsible for 85 per cent of crime. Here is an open mind studying statistics. What does it mean that 2 per cent of the population are charged with crime, that 2 per cent of the population are defective, that the criminal age is 15 to 24, that repeaters are not often reformed, that they reappear in the morals court and later in the court of domestic relations?

Sometimes an official is careless of responsibility. There is a rule in the Boys court that the card of a repeater be marked "Send to the laboratory." In one instance at least, an irresponsible clerk failed to mark the card, minor judges passed it by. There were seven chances to send to the laboratory, seven failures to get further information and the result was a dead officer, a widow and dependent children.

The study of crime leads inevitably to the consideration of that phrase which sends a shudder through the mind of any one who has watched the tragedy of dementia praecox. The newer term, "schizophrenia," carries within itself a more precise definition and because the milder form of split personality sometimes does recover and the patient does not carry the stigma of the harsher name is to be preferred.

There is no conceivable opposition to the intensive study of the problem child. And this is by all odds the most productive ground in the field of mental hygiene. But an immediate demand is upon our civic activities to consider the extravagance of non-interference with the progeny of those with criminal heredity and with the immigration of such as will increase the defective and delinquent population. It ought to be possible to constitute a commission responsible and with power to act upon such a program. Such a commission might include a psychiatrist, a lawyer from the juvenile court, a churchman of open mind, an economist socially minded and a psychologist.

Our person and our home are the only possessions really much worth while. Mr. Orr's cartoon recently published in *The Tribune* points the way in supervision of immigration. If we change the little Japanese lady and her chickens to the defective and delinquent, it applies admirably to our obligation to keep out of our garden the factors destructive to good racial stock. Physical and psychiatric examination of immi-

grants at the port of debarkation is the first step.

Prevention of crime historically is based on punishment. Scientifically, it is based on removal of handicap, segregation and occupation, with vasectomy or tubectomy for repeaters. Fundamentally, prevention of crime demands study of adolescence and of little children.

Judge Summerville of the Alabama Supreme court has been quoted often on the mental responsibility for crime:

Was the defendant mentally ill?

Did he know right from wrong?

Has he through mental illness lost the power to choose?

The law should keep pace with science. So should the church. And public education should not lag. All this and more should be a part of medical training.

Surgical relief which does not impair physical characteristics will gradually be accepted. Segregation and supervised occupation will come slowly because it involves immediate large outlay in an unaccustomed way. The removal of handicap makes a popular appeal and there is universal assent to the study of the problem child.

From Pennsylvania has come recently a significant report.¹ The Danville State Hospital is a rural hospital. The staff secured the co-operation of the medical profession of the region and also that of various civic and educational groups. The conclusion from the first table of 391 children under 16 is that somewhat less than half are possible of readjustment. The rest are hopeless so far as the standpoint of future parenthood is concerned. But from the standpoint of improvement under wise supervision and treatment, the percentage is 75. This is an example of possible community cooperation.

Massachusetts by virtue of its age in philanthropic study has many good things. Two of the most recent are the Judge Baker Foundation and the Habit Clinic for Children. Dr. Thom, the director of the latter, has supervised a series of leaflets well worth distribution by the family physician.

New York follows with special post graduate facilities for the student of mental health. The Commonwealth Fund and the Physicians' Fellowships demonstrate the value of national cooperation.

¹Jackson and Pike. J. A. M. A., April 4, 1924.

One of the encouragements in our own state is the recent legislation for appropriation of \$60,000 for the survey of specially handicapped children. This is under the cooperation of the State Department of Public Welfare and the Chicago Board of Education. The groups comprise three years retardation in school, the delinquent, and any handicap which interferes with school progress.

The recent survey of 5,500 school children in the township of LaSalle, Peru and Oglesby is familiar to all who heard the recent program in the Neurological Society. A fund of \$5,000, a cooperative school principal, a psychiatric social worker and a good program make this an admirable model for other communities to follow.

Another instance of community cooperation is the commission of 22 in Vancouver who investigated a faith healing conference. The commission comprised 8 physicians selected for their experience in the pathology probably to be encountered, 3 University professors representing biology, psychology and law, and 11 from churches and Salvation Army. Of the 356 investigated, 212 reported "no change," 5 "cured," 5 had become insane and 39 had died. This constructive community cooperation is gratifying.

But there may be cooperation which amounts to duplication, as outlined by Hyman Kaplan, in "Federating from the Bottom up."² A wholly dependent family of seven visited by representatives of eight relief organizations demonstrates rather the kindness of a community than its wisdom.

We have tried to avoid such duplication in a small social enterprise on the south side in the effort to provide wholesome recreation and safe play out of school hours for children under twelve.

Along 55th street east of Cottage Grove is a street car line and the usual crowded flats. The alleys and sidewalks are the playground. An effort to secure a permanent house was thwarted by protesting neighbors. Sunny rooms on a second floor serve as a play room where two trained, salaried workers direct activities of normal children. Girls do housework as well as the boys, and boys ask to come into the sewing classes. A little girl handicapped by deafness excels in the water color class. In the summer vacation a salaried supervisor is on the play ground of the Ray School afternoons until dusk.

and some effort is made for street play at the corner of most dense population.

One of the finest things being done in Chicago to relieve the socially handicapped is the Industrial Workshop on West 13th Street which maintains a weaving room, sewing rooms for part time workers and a shoe repair shop. Here the diagnostic group of the Michael Reese Dispensary cooperates with the Jewish Charities and returns many an individual to industry. This enterprise ought to be duplicated in many sections as a practical solution to the problem of financial relief to the needy.

The problem child does not respond to ordinary methods, is a menace to other children, and is usually handicapped by environment or heredity and frequently by both. From Little Rock, Arkansas, comes the story of a recent mental hygiene conference under the chairmanship of Dr. Ida Joe Brooks, in which "a play with an all-star cast" is staged. An hypothetical child is introduced by the Supervisor of primary work, and referred to the attendance officer who finds the child a truant and refers him to the physician for physical examination. Thence he goes to the psychologist for mental rating. Being defective and delinquent, the psychiatrist makes a differential diagnosis and gives the prognosis, calling upon the Secretary of Charities to relate the possible institutions in the state where such a problem can be further cared for. Finally the Superintendent of the State Hospital contributes his part in the study of the problem child. This community cooperation is of a high order and makes for progress in mental health.

What to do? Carry on with patience and persistence until there is an adequate medical corps to staff all the child clinics needed and until the laity keep pace with science.

MONOCULAR MYOPIA*

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An individual with monocular myopia is generally unconscious of this condition till some adventitious circumstance—such as an injury to the affected eye—induces an ocular examination. The injured party then naturally assumes that the trauma is responsible for the defect in vision.

*Read before the Section on Eye, Ear, Nose and Throat at the 74th Annual Meeting of the Illinois State Medical Society, at Springfield, May 7, 1924.

²Survey, March 15, 1924.

whereas in reality were it not for the amblyopia, the ocular or periocular injury would probably not have occurred. That such a situation may have a serious medico-legal aspect is obvious. In view of our present day compensation laws, exact knowledge about such a condition should be readily available. Unfortunately, in the books and periodicals written in English the references to monolateral myopia are but scant and causal. I have consequently felt that a discussion of this subject would be of distinct value.

The two eyes generally present about the same type of refraction. Inequality, when found, is mostly in myopics. This variability is possibly



FIG. 1. WHICH HAS MOLECULAR MYOPIA?

These men are identical twins, age 26. The refraction of the left one is: R.—19.00S; L.+1.25S. The other's correction is: R.—8.00S. ()—.75C. x 15; L.—12.00S. The former keeps his eyes wide open, as he only uses his hyperopic eye. The other, however, with both eyes highly myopic, has the palpebral fissures characteristically narrowed. They both are illiterate, manifest constitutional psychopathic inferiority, and have a mental age of 10. Their general health is poor.

accounted for by the essentially morbid process present in myopia, whereas hyperopia represents but a state of defective evolution. Decided hyperopia that is confined to one eye occurs,—but very seldom.

The incidence of monocular myopia is surprising. Of 1,240 cases of myopia studied by Manguis¹, the monolateral ones numbered 180, or 14.5 per cent. This ratio is probably accurate, as practically the same figure is obtained from

combining a large number of cases reported by others. (Schiotz², Vignes³, Nimier⁴, Dor, De-Reuss, Nordenson, Seggel).

In the newborn myopia is only most exceptionally present, either as a monolateral or bilateral affection. Among 3,200 infants examined by recent investigators, not a case of myopia was noted (Parsons⁵). Monolateral, like bilateral myopia, develops during the formative years. Vignes, in his study of 321 schoolboys between the ages of 7 and 13, found 42 cases of myopia, 14 of which were monolateral. These monolateral cases were all above the age of 10. Myopia that has developed in one eye remains indefinitely monolateral. Sixty per cent of Manguis' 180 cases were over 20 years of age, which would definitely indicate that the companion eye remains permanently uninvolved.

The maximum degree of monocular myopia noted has been, for man, —20.D.; and for woman, —24.D. The number of female cases definitely exceed the male in the higher degrees of antimetropia. Two-thirds of Manguis' 45 cases above the —6.D. range were in women. Druault-Toufesco⁶, in a series of 351 cases above the —3.D. range, found 223 women, 128 men.

The most frequent range in monocular myopia is —3.D. to —6.D.; and nearly three-fourths of the cases are under—6.D. The right eye is most often affected (57 per cent). This is in accordance with Duane's observation that in anisometropia the right eye usually has the higher refraction. There is no harmony between anisometropia and strabismus, though strabismus divergens is frequent above the —6.D. range. Facial asymmetry is only occasionally marked. Where notable, the myopic side is larger and better developed. (Risley⁷, Vernon⁸). In my most extreme case, with the refraction: R.E.—19.00D; L.E.+1.25D facial asymmetry was wanting (note photograph), though marked divergent strabismus was present. On the other hand, a patient whose face was most markedly asymmetrical from a congenital defect of the left infraorbital region (malar and maxilla involved) disclosed under atropin refraction but simple hyperopia: R. +1.50S., 20/15; L.+1.25S., 20/15. These discordant findings tend to corroborate the view that no definite relationship exists between refraction and interpupillary distance. Schneller found the mean interpupillary distance in hyper-

metropes, 59.95mm.; in myopes, 61.45mm.—a difference of but 1.5mm.

Pfingst⁹ has reported the following unique case: A woman at the age of 15, after cycloplegic refraction, received the following correction: R.+2.5S()+.75C X105; L.+5.0S()+.50C °75. These lenses gave 20/15 vision to each eye, and relieved completely the asthenopic symptoms. At 18 the glasses were still satisfactory, and gave a vision of R.20/15; L.20/15. At 26, the patient reported impairment of vision in the right eye that had developed to such a degree as to render that eye useless. The eye squinted markedly outward, vision was 20/200; and the refraction —6.00D. A large myopic crescent was present. A year later the myopia of this eye had increased to —8.50D., and the chorioid showed atrophic areas. This remarkable case shows that the development of monolateral myopia after 18, though most unusual, is undoubtedly possible.

Trauma may produce monocular myopia, but such cases are lenticular, *not axial*, in pathology, and are generally dependent on a ciliary spasm or an anterior dislocation of the lens. An example of the former type is illustrated in a report of Schiess¹⁰. The patient's eye had been struck eight weeks before by a large case. Examination under atropin cycloplegia disclosed a refraction of —4.75D. After the use of atropin for five months, the myopia diminished to —.75D. Curiously enough, subluxation of a clear lens has been noted in a previously emmetropic eye (Rompoldi, cited by Wurdemann¹¹). The anterior surface of the lens touched the cornea, but with a correction of —5D. the patient secured full visual acuity. Laws¹², in a report of temporary myopia following trauma, advanced the theory that ciliary paresis occurs causing lowered tension, which in turn permits the pressure of the extra-ocular muscles to lengthen the globe. His patient had been struck in the right eye by a cork from an exploding bottle seven days previously. Under atropin, the refraction was —6D. In a week the eye returned to emmetropia. Laws, in his interpretation, evidently fails to realize that a ciliary spasm can resist for some time the effects of atropin. The temporary hypotony that sometimes follows injury passes away without leaving any ill effects behind (Fuchs).

Axial myopia in its behavior and pathology is no different in the monolateral than in the bilat-

eral form. This alone indicates the very minor importance of extrinsic factors, for myopia may develop progressively to its most malignant form in an eye that is altogether unused. Myopia often accompanies opacities of the cornea or lens, or follows in the wake of chorioiditis, but the explanation is invalid that attributes this secondary myopia to the close approximation of near objects that follows the effort to secure a larger retinal image. Two of my cases of monocular myopia had bilateral opacities. In one, age 30, with symmetrical face (interpupillary distance, 67mm.), light maculae were symmetrically situated about the corneal centers. Vision was R.20/100, L.20/15; the refraction, R.—8.00D., 20/70; L.+7.5D.20/15. The true cause of secondary myopia is not the deleterious action of near vision but rather the softening of the sclerotic coat directly or indirectly occasioned by the antecedent disease.

Struck by the frequency of secondary myopia, Mangis assumed that the explanation of monocular myopia rests on a similar basis. He supposes that in the early life of predisposed individuals, corneal affections or ocular or periocular traumatism have occurred setting up an irritation productive of myopia. Since corneal opacities may clear completely, the corneal inflammations not leaving any trace,—evidence of such antecedent affection in later life may be entirely wanting. It seems unlikely, however, that an irritation of the cornea intense enough to profoundly affect the sclerotic coat would not leave some trace, though it is possible that our usual methods of examination may not be adequate for its detection. However, Dr. Von der Heydt of Chicago was kind enough to examine some of my cases with the slit lamp, and reported their cornea and lens absolutely clear, in confirmation of my previous findings.

Recent researches in developmental mechanics as well as studies in organ inferiority are very pertinent to the whole subject of myopia. In the early embryo the developing head-end always shows the highest rate of oxidation and activity, the activity gradually diminishing toward the posterior end. The more active a region is the more it reacts to adverse chemical or physical phenomena (Child¹³), and the eye particularly is susceptible to any kind of harmful influence. Utilizing agents that depress the embryonic or-

ganism at critical stages in development, Stockard¹⁴ has experimentally produced almost every variety of ocular defect—coloboma of iris and chorioid, opacity and displacement of lens, persistent hyaloid artery, microphthalmos, etc. These anomalous eye conditions, when produced by deleterious agents acting on the parents, are later spontaneously transmitted generation after generation—in the general manner of a Mendelian recessive. The transmission is not infrequently of an irregular unilateral type, sometimes only the right, at others only the left eye showing the defect (Guyer¹⁵).†

Fetal defects according to their degree, produce a functional or morphologic inferiority of the organ involved (Adler¹⁶). This inferior organ in later life is particularly liable to disease. For example, I have noted that when hordeolum, pterygium or iritis affect one eye, it is usually that which previously had the more abnormal refraction. Adler thus illustrates how deceptive is the role of chance: A boy of 8 was injured in August, 1905, by a pen penetrating the conjunctiva of the left eye. The wound healed uneventfully. In October, 1905, a foreign body entered the left cornea, and was removed with excellent recovery. In January, 1906, the left eye received another pen prick. All this seems bad luck, but the following family history was ascertained: The maternal grandfather suffered from diabetic iritis; the mother and the patient's younger brother had both hypermetropia, diminished visual acuity and convergent strabismus. A brother of the mother had convergent strabismus, and a history of recurrent phlyctenular conjunctivitis. Our patient had normal visual acuity with slight hypermetropia, but showed a functional deficiency—a bilateral lack of the conjunctival reflex.

Congenital defects are particularly common in myopes; they are also relatively frequent in high hyperopes; but the defects found in the myopes have to do with irregularity in the late development of the eye, whereas in high hyperopes the defect is in the early development. Two of my monocular myopes showed remains of the hyaloid

artery in the affected eye—in one as a posterior polar cataract. In 1,714 myopes studied by Drualt-Toufesco, 48 per cent showed local ocular anomalies. The scleral and chorioidal crescents so common in myopes are on a congenital basis, and are not infrequently seen in hyperopes and emmetropes. Their frequency in myopia merely indicates that the eye with this congenital anomaly especially tends to acquire posterior staphyloma.

In his analysis of human types, Stockard¹⁷ points out that a fundamental relation exists between the state of refraction and development in general. In development, linear structure is derived from initial rapid growth along the body axis. Lateral growth only expresses itself after that in length has become slower. According to the dominance of these factors, mankind is divisible into linear and lateral types. The linear type arrives at puberty early, tends to be farsighted, long-headed and under weight for height. The voice is bass or baritone. Temperamentally the individual is self-conscious and energetic, rarely laughs aloud, and when suddenly shocked never screams. The lateral type is slower in maturity, tends to be myopic, broad-skulled and stocky. The voice is high or tenor. The nasal bridge is wide and often low; the mouth wide and the teeth smoothly set. In many other ways are these types antithetical. The different types occur in all races, all classes, and all countries; but it is probable that the type differentiation is principally due to environmental influence. The linear type predominates in maritime climates, such as England, where iodine is abundant and the thyroid active. The lateral type, exemplified in the Germans, is most often seen in central continentals, located far from the iodine supply of the sea.

Primary myopia must then be considered a congenital evil, which would be influenced most by the proper selection of individuals for marriage. It is rare to find myopic children in families where both parents have normal eyes.

CONCLUSIONS.

1. Monocular myopia is almost identical in behavior and pathology with the bilateral affection.
2. No proved case of axial myopia exists consequent to trauma to or about the eye.
3. The frequent association of corneal opaci-

†Prof. C. R. Stockard in a personal communication writes: "From a rather wide study of vertebrate embryos—birds and mammals, as well as fish, I am inclined to believe that the two eyes are rarely symmetrically developed. One eye and one side of the brain almost invariably has a slight developmental advantage over the other side as indicated by a little difference in time of differentiation and a little difference in size. I am inclined very much to suspect without very much actual evidence that the right side might show an advantage over the left in certain diseases, and vice versa in others."

ties with secondary myopia suggests as a prophylactic measure the early, active and prolonged treatment of the antecedent keratitic affections, especially when they occur in children.

4. Primary myopia is based on congenital organ inferiority of the eye involved.

LITERATURE CITED

1. Manguis, J. P.: Contribution a l'etude dela myopie monolateral. Paris Thesis. 1893.
2. Schiotz: Archiv. f. Augenh. 6:37, 1886.
3. Vignes: Societe d'ophthalmologie de Paris. 1891.
4. Nimier: Societe d'ophthalmologie de Paris. 1891.
5. Parsons, J. Herbert: Pathology of the Eye. London, 1904.
6. Druault-Toufesco, S.: Notes on Myopia. Annals d'Oculistique: 1922.
7. Risley, S. D.: Anisometropia. Ophth. Record. 7:609, 1898.
8. Vernon, B.: Anisometropia with facial asymmetry. Med. Press & Circular. n. s. 35: 315, 1883.
9. Pfingst, A. O.: Unilateral Progressive Myopia. Am. J. Ophth. 3:129, 1920.
10. Schiess: Klin. mon. of f. Augenh. 1881, p. 384.
11. Wurdemann, H. V.: Injuries of the Eye. 1912. Cleveland Press, Chicago.
12. Laws, W. G.: Temporary myopia following a blow on the eye. Ophth. Rev. 16:204, 1897.
13. Child, C. M.: Origin and Development of the Nervous System. 1921. University of Chicago Press.
14. Stockard, C. R.: Artificial production of structural arrests. Proc. N. Y. Path. Soc. n. s. 13, 1914.
15. Guyer, M. F.: Production and transmission of certain eye defects. Trans. Intern. Congr. Ophth., Washington, D. C., 1922.
16. Adler, Alfred: Oregon inferiority and its psychical compensation. (Trans. by S. E. Jelfie.) 1917. New York.
17. Stockard, C. R.: Human types and growth reactions. Am. J. Anat. 31: 276, 1923.

DISCUSSION

Dr. Harry S. Gradle, Chicago: We ran across a great many cases of high myopic error in one eye prior to Dr. Lebensohn's findings and it has been my experience that the majority of such cases are aware of the defect in that eye before they come for refraction. That, of course, is rather incidental.

The war and the subsequently developing examination of eyes in the service has brought out a great many of these cases that formerly were unknown. I wish to mention incidentally two cases that bear upon this subject. One was a man with emmetropia in one eye and the other somewhere between 12 and 14 diopters of myopia. Then occurred a severe retinal hemorrhage in his good eye, leaving him with a highly myopic eye which was barely sufficient to allow him to get around alone. Even with the best possible correction his vision was not sufficient that he could leave the limits of known surroundings. However, by giving him a proper correction in that eye he gradually developed sufficient vision in that eye so eventually he had vision enough to enable him to go around in his own town without discomfort.

The second type of case was a little girl four or five years old whom we examined under atropin and found essential emmetropia in one eye, whereas in the other there was myopia of from 4 to 5 diopters with a resultant poor vision. With the best possible correction of the myopic eye, her vision was about .2 of the normal. We endeavored to educate vision in that eye by giving her a correction of the myopia with a ground glass over the emmetropic eye, this correction to be worn during meal time and for about an hour and a half

each day. In the course of 8 months following, the vision in that eye developed from .2 to .8. Of course there is no fusion and of course the eye is not utilized. But there is sufficient vision in that eye so that in case anything should happen to the other eye, it will always be useful.

Dr. Michael Goldenburg, Chicago: Just one or two points relative to the subject. That is, the possibility of these eyes being congenitally predisposed to myopia. Furthermore, relative to the so-called softening of the sclera that has never been confirmed. It is mere theory. We do know that the sclera of the very young is soft; not exactly soft but will stretch. And I wonder if in these cases there is not a defect in the production and exit, particularly the exit of the fluids thereby producing what we call in later life hypertension. By its interference with the free exit of the fluids probably this sclera is stretched and in that way produces myopia.

Dr. M. H. Lebensohn, Chicago: The essayist has given us a pretty good summary of the subject of monocular myopia. It is necessarily largely statistical. I will confine my discussion briefly to high degrees of monocular myopia, because it is more interesting, just as the high degrees of binocular myopia are of greater interest than the lower degrees. So it is in monocular myopia also. As the essayist stated, the majority of the cases are about from -25 or -50 up to -6 I will take the myopias from the high degrees, from 7½. Fuchs considers the high degrees of myopia from 10 diopters up. I suppose he took 10 diopters because the pathological changes in the eye, that is the choroidal and retinal changes, are more manifest in the high degrees than under 10. I have seen a good many cases from 7½ to 8 diopters where there were quite characteristic changes in the retina and choroid. Hence I will take that as a basis.

I have recently reviewed 9,639 refractions in private practice, taking from 7½ diopters up. I found 35 cases of high degree of monocular myopia. That is, one eye was hypermetropic or emmetropic and the other eye was anywhere from 7½ up to 14 diopters.

Now, contrary to the usually accepted statements that in cases of monocular myopia the right eye is more often involved than the left, I find that in my cases they were nearly even; 18 were in the left and 17 the right, except that in the right eye the monocular myopia was higher. I have had as high as -14, I think in one eye and -.25 in the other, while where the monocular myopia was confined to the left eye it was less. The highest I had in the left eye was two cases of 9 diopters and the rest from 7½ to 8. I also had this in a number of cases not strictly monocular myopia, where the difference in the refraction was high between the two eyes, but cannot be classed as monocular.

Now of the various theories advanced as the cause for the elongation of the eye, I think the theory advanced by Von der Hoeve that it is due to an inflammatory condition that makes the choroid and sclera softer or the one advanced by Schnabel that it is a

congenital defect, is more reasonable, especially in cases of monocular myopia, than the other theory that was mentioned by the essayist as muscular pressure or the shortness of the ciliary muscle.

The reason I was so especially interested in monocular myopia, especially of the high degrees, is because it is not only of scientific value, but has great practical value.

The question is what can you do for a case of monocular myopia? Take a patient with either normal or nearly normal vision in one eye and a high degree of myopia in the other. Would that patient be benefited by strong concave lenses? I have experienced along that line and I have found this: That in cases of young patients, that is under 15 years of age, they are frequently benefited by the correction. I do not know how the binocular vision afterwards is or whether there is any. The doctor will perhaps discuss the fusion center and try to find out whether one can wear a —10 or —15 in one eye and a weak — lens in the other eye, and be able to fuse or not. I find young patients can wear them with a good deal of benefit and with some comfort. With patients over 20 or 25 I find they do not derive any benefit at all. The myopia progresses and stronger concave lens will be necessary and, furthermore, they are frequently not able to wear the correction.

THE FOOTHOLD BY WHICH THE BOGUS PRACTITIONER DISLODGES THE SKILLED MAN.

THE "WHY" OF LAY EDUCATION.

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The fact that uneducated and unscrupulous individuals are seizing every opportunity to participate in the practice of medicine constitutes a menace to public welfare and the advancement of science for which the medical profession itself is, in a measure, to blame. These are days when the masses follow the banner of publicity and the medical profession has fallen out of step.

Ethical proscriptions of the medical confraternity inhibit the exploitation either of their own members or the mother science that they serve. But on all sides the bogus skill of the incompetents is exalted to the skies. Besieged by the cry of the charlatan, the sick man hears and believes to his own undoing. He does not know the difference between what is false and what is true. He hears vaguely of wonderful progress and miraculous "research discoveries" made by medical science. But taking advantage of the

dignified reticence of medical science, the charlatan seizes upon the name, and perhaps the method, of specific progress and uses it to delude the ill and unwary. The sick man does not know where to find efficiency even if he knows of its existence. In other words, the quack sits in plain sight with his shingle out, while medical science hides its light under a bushel.

To place before the citizenry of the country a knowledge of what is being done by reputable medical men, and to show clearly how the everyday man may avail himself of scientific advances both for himself personally and for the public health, is an added task laid upon the shoulders of the doctors. It is a direct result of the complex twentieth century civilization.

The quacks and charlatans flourish from their appeals to personal egotism, through the specious suggestion of the possibilities of self-medification, and through the purchasing power of spectacular and exaggerated advertising. Such ways and means are, of course, beyond the pale when ethical considerations are taken into account. But the way that must be followed, the only path possible for the conservation of the public health and welfare, and the future of medicine, lies in a generous, simple, but widespread revelation of the truth about medicine, what it has done, is doing, and is going to be able to do, for the benefit of suffering humanity.

A point distinctly worth consideration is the reinforcement of the profession. Standards of medical education have been raised from time to time until at present the requirements are so high that a man cannot enter the practice of medicine until he has reached approximately twenty-seven years of age. This means, too, that he will have expended upwards of \$25,000 of money already earned to secure his medical education, to say nothing of the loss of potential income that he might have been making from the time he was sixteen years of age while working as a bricklayer at wages far in excess of what the average doctor makes the first five years of his practice.

Put this situation against the allurements held out to students of the cults and systems who are being advertised for in all the cheaper class of magazines and periodicals to "take an eight weeks' course and learn to be a something-or-anotheric and get a doctor's certificate." Brakemen, plumbers, and ambitious barbers are

studying at home nights and noontimes and clamoring for recognition as scientific medical men. The public is not yet awake to what it needs for its own protection.

Another important point is found in the fact that the trend of modern education has left the younger generation of doctors impatient of the little things. Yet the routines of life are made up of trivialities.

Upwards of 75 per cent, moreover, of human ailments are to be classed accurately as trivialities. These younger doctors, for the most part, have their eyes fixed upon the great moments of medicine, with almost complete disregard of the everlasting minorities. Intent upon the critical laparotomy, or other serious surgical operation, idealistic young physicians are prone to neglect the everyday need of the ailing public. AND HERE IS THE LOOPHOLE THROUGH WHICH THE BOGUS PRACTITIONER CREEPS TO FIND A FOOTHOLD BY WHICH HE MAY DISLodge THE SKILLED MAN.

Out of the inattention of scientific men for ordinary wants of an indisposed people spring and flourish the mass of cults and mock medicine that insidiously deprive the sick of expert medical attention. The pseudists lend a sympathetic ear as they receive cash in advance for their treatment of petty maladies.

INTRACRANIAL COMPLICATIONS OF SUPPURATIVE OTITIS MEDIA*

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This paper is based upon a study of the intracranial complications of suppurative otitis media that were observed at Cook County Hospital during the decade from 1911 to 1920, inclusive. Only the most frequent and important complication will be considered. Of the total number of cases of suppurative otitis media, 10 per cent. had associated some form of intracranial complication. Multiple intracranial complications were usually present in the cases classified either as meningitis, sinus thrombosis, or brain abscess. Multiple intracranial complications add to the sum total of the symptomatology and therefore the clinical picture assumes the composite type making a complete diagnosis very difficult or im-

possible. This fact is of great importance in the diagnosis, as we may not only have the symptoms of the complication under consideration to deal with, but in addition, those of the primary disease and associated intracranial complications.

1. *Meningitis*.* Meningitis was found to be the most frequent complication. It occurred in 5% of the cases of suppurative otitis media. Sixty-three cases of meningitis showed a mortality of 97%; of the 29 cases that were autopsied, 100% showed meningitis, 34% sinus thrombosis, 14% cerebral abscess, 14% cerebellar abscess, and 10% extradural abscess.¹ In the cases in which the spinal fluid was examined, 54% showed microorganisms; the cell count ranged from 120 to 367,000 cells and was over 1,000 in 73%.

There is much confusion in the nomenclature of meningitis due to the multiplicity of adjectives used to describe the same pathological entity, e. g., serous, circumscribed, sympathetic,² and protective.³ These terms refer to a type of cases in which there is meningeal irritation or a localized irritative meningitis due to the presence of some suppuration adjacent to the meninges and for convenience will be referred to as Type 1 meningitis. There is another type which is called suppurative, purulent, diffuse, septic or those designated according to the causative bacteria as streptococcic meningitis, etc.; these will be referred to as Type 2 meningitis.

Clinically, we distinguish three conditions, 1 meningismus, 2 Type 1 and 3 Type 2 meningitis, in which we have menigitic symptoms in varying degrees of severity, viz., mild, moderate and severe. A meningismus is ruled out at once by the presence of a normal spinal fluid; in both types of meningitis we have evidence of the presence of an inflammation of the meninges in the spinal fluid, viz, increased spinal fluid pressure, quantitative increase and qualitative change in the cytologic content of the spinal fluid, and the presence of globulin.

How are we to differentiate the two types of meningitis?

First, bacteriologically. This is the earliest distinguishing feature. A sterile fluid indicates

*In this group were classified those cases of meningitis in which suppurative otitis media and no other focus of infection was present or where the clinical or pathological evidence pointed to the otitic involvement as being the cause of the meningitis. Care was used to exclude meningitis due to other causes as the meningococcic, tuberculous and syphilitic meningitis, etc.

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Type 1 and the presence of bacteria indicates Type 2. But, many cases of Type 2 are associated with negative smears and cultures, because in the early stages, Type 1 may be a precursor of Type 2 meningitis. I am certain that microorganisms would be found in most cases of Type 2, if the spinal fluid was subjected to a daily search of the smear and culture, as nearly all of these cases at autopsy give positive bacteriologic findings.

Second, cytologically. The spinal fluid in Type 2 is characterized by a relatively high cell count. As a rule, a cell count over 10,000 speaks for Type 2 and under 10,000 for Type 1. There are numerous exceptions to this, but every 100% increase over 10,000 makes the diagnosis of Type 2 more certain. In the borderline case, it is impossible to differentiate the two types cytologically.

Third, clinically. In Type 1, the meningitic symptoms rapidly disappear after the early drainage of the suppuration adjacent to the meninges and the patient recovers, whereas, in Type 2, there is no successful treatment and it is fatal. But, there are exceptions to this rule as Singer,⁴ states that the presence of organisms is not infrequently associated with low cell counts in circumscribed meningitis and these are the cases in which bacteria are found in the spinal fluid which have been reported as recovered.

The practical application of the clinical division of meningitis into two types is to contrast more sharply the indication for the immediate operative interference in Type 1 of either otogenous or rhinogenous origin. If operative interference is delayed too long, Type 1 may develop into Type 2. When the subarachnoid space is diffusely involved as it is in Type 2 it cannot be successfully irrigated and drained as is the case with the other endothelial lined cavities as the pleural, synovial and peritoneal cavities. In this connection, I wish to repeat and emphasize a former statement,¹ "the presence and especially the persistence of a Type 1 meningitis of otitic origin after a mastoid operation has been performed, in order to exclude sinus thrombosis, perisinus abscess or extradural abscess, denotes the presence of some intracranial suppuration as subdural, cerebral or cerebellar abscess and calls for an immediate operative exploration of the middle and posterior cranial fossae."

Finally, we must not overlook the fact that an

individual with an otitic suppuration may have a meningococcic meningitis. Therefore, the spinal fluid should be examined for the meningococcus and if found or if in doubt, an intraspinal injection of antimeningococcic serum should be given.

2. *Sigmoid Sinus Thrombosis* was found second in frequency; 34 cases being observed which was 3% of the cases of suppurative otitis media. We should suspect any case of suppurative otitis media that develops a rigor or chilliness that cannot be explained by the presence of infection elsewhere as, tonsillitis, erysipelas, pneumonia, malaria, pyelitis, etc., of being at least a presumptive case of sinus thrombosis. This becomes especially significant when the chill is followed by a high fever and sweat and there is associated mastoid tenderness or radiologic evidence of mastoid involvement. Leucocytosis is usually marked, but I have seen it absent. Chills and chilliness are not infrequently absent. The fever is usually intermittent, of the church steeple type; it may be remittent. I have seen fever absent. Blood cultures, in my experience, have not been of any aid. It is a mistake of vital importance to the patient to procrastinate, awaiting the report of a blood culture, when sufficient signs and symptoms are present to warrant an operative exploration of the lateral sinus. A very suggestive sign in these cases of thrombosis of the sigmoid sinus and jugular bulb is the presence of enlarged and tender submaxillary lymphatic glands. In the 34 cases of sinus thrombosis observed at Cook County Hospital, leucocytosis was present in 97%; tenderness over the mastoid 51%; chills 47%; metastatic foci (arthritis, cellulitis, abscess) 40%, and sweats 21%.

The diagnosis should be made before the occurrence of metastatic phenomena. The earlier the operation, the better the prognosis; every day of delay lessens the patient's chance of recovery. Of the 34 cases, 26 died, or a mortality of 79%.

3. *Brain Abscess* was found third in frequency; 23 cases being observed which was 2% of the cases of suppurative otitis media. Thirty-five per cent. of the brain abscess cases were of otitic origin; the total number of brain abscess cases due to all causes was 64 cases; of the 18 cases of otitic brain abscess that were operated on but one recovered, a mortality of nearly 95%. Of the cases in which the diagnosis was con-

firmed either by operation or autopsy, 65% were temporosphenoidal, 23% occipital and 12% cerebellar.

The symptomatology of brain abscess consists essentially of those of increased intracranial pressure, as slow pulse, choked disc, vomiting, etc., and the focal findings which correspond to the location of the abscess. In a left temporal lobe abscess in a right handed individual, optical aphasia (Freund)⁵ or anomia (Ballance)⁶ is frequently present. The patient is unable to name any of the common objects shown him but can explain how and for what purpose the object is used. Ballance⁶ states that the lesion involves the naming center in the posterior part of the left inferior temporal convolution. Amnesic aphasia may be associated as was the case in a patient who forgot her birthplace and her sister's name. Word deafness or auditory aphasia is the inability to understand spoken language and is the result of a lesion in the posterior part of the left superior temporal convolution. Word blindness or visual aphasia is the inability to understand written language and is the result of a lesion in the posterior part of the left temporal lobe and inferior parietal convolution. In temporal, parietal or occipital lobe abscess, the optic radiations may be involved causing a hemi- or a quadrant anopsia. Pollock⁷ found homonymous quadrant anopsia associated with an aphasia, in a case of left temporal abscess. It is absolutely necessary to have the visual fields taken in every case of suspected brain abscess. Left temporal lobe abscess has been frequently diagnosed by the presence of anomia and this sign should always be tested for in suspect brain abscess cases. A large abscess in the right temporal lobe may be present without causing any focal signs.

In cerebellar abscess, the focal signs are those of disturbances of equilibrium, orientation and synergy. Among the most important of these are: ataxia with falling towards the side of the lesion; spontaneous past pointing of the homolateral arm outward with the loss of reactive past pointing in the opposite direction; spontaneous nystagmus, which is characterized by being ataxic, and the slow component of which is directed away from the side of the lesion; adiadochokinesia; incoordination of the homolateral extremities. There is frequently loss of response from the cochlear and vestibular nerve on the af-

fected side. Cerebellar signs are characteristically homolateral and affect the side of the lesion.

In general, while the presumptive diagnosis of brain abscess can be made from the symptoms of intracranial pressure, it is only by the aid of the focal signs that a definite preoperative diagnosis and successful localization can be made. In one of my cases of left temporal lobe abscess, the decision to operate was made on the presence of anomia. Among the most significant of the symptoms of increased intracranial pressure are the following: slow pulse, which according to Macewen⁸ may be the sole indication for operation. Delayed cerebation is often associated with temporal lobe abscess; optic neuritis or choked disc is present in 50% of the brain abscess cases; severe and continuous headache is a frequent symptom. The symptoms due to presence of infection as fever, leucocytosis, may be due to the primary disease; fever is frequently absent or subnormal. The associated meningitic symptoms may vary from the mildest to the most severe.

The most important procedure in connection with the diagnosis of a suspected otitic intracranial complication is the examination of the cerebrospinal fluid. In an examination of the Cook County Hospital records, I found 12 cases of brain abscess with a report on the spinal fluid cell count in which the diagnosis was confirmed either by operation or autopsy of which 83% had a cell count of 400 cells or less. Type 1 meningitis is always associated with brain abscess, and may develop two months after the abscess had been drained as occurred in one of my patients, who showed a cell count of 94 before operation and two months later, 21,000 cells with streptococci.

The treatment of brain abscess is operative as soon as the diagnosis is made. An otitic brain abscess is best attacked via the avenue of the primary infection for the following reasons: gravity drainage is favored; Nature, frequently, has already coffer-dammed this approach to the brain abscess and has the subarachnoid space sealed off; the location of an otitic brain abscess is frequently adjacent to diseased bone, and local evidences as the dark red color of pachymeningitis, dural granulations and adhesions, fistulous connection with the diseased bone, bulging and lack of pulsation may be present and because the caus-

ative and associated middle ear suppuration should be cleaned up.

Brain surgery owes its gravity to the existence of the subarachnoid space; if it were not for this, the drainage of a brain abscess would not be such a formidable procedure. When there is a spontaneous walling off or exclusion of the subarachnoid space by Nature forming protective adhesions, this danger is negligible and immediate drainage should be instituted at once. Where spontaneous exclusion of the subarachnoid space is absent, we should imitate Nature by producing the necessary protective adhesions. This, I think, is best accomplished by the method of Ballance,⁶ who does a two stage operation; first exposing the dura and 24 to 48 hours later, after adhesions have formed between the dura and the pia-arachnoid, drains the abscess.

I believe in a generous removal of bone sufficient to obtain a good exposure of the dura and a relatively small opening in the dura because of the lessened liability of infecting the subarachnoid space and brain and the avoidance of a subsequent hernia cerebri and fungus cerebri. A hernia cerebri is due not to the size of the osseous opening but to the size of the opening in the dura. A hernia cerebri becomes a fungus cerebri on account of a cerebritis.

The most important part of the after treatment is to provide adequate and continuous drainage. The rubber drainage tube should not be removed permanently until all discharge has ceased, which is usually not before three or four weeks. I think it is a mistake to substitute gauze for tube drainage, as this will favor a premature closure of the dural opening; this occurred in one of my cases which developed a fatal meningitis two months after operation.

4. *Extradural Abscess* is usually stated as the most frequent intracranial complication of otitic origin, but as far as our records show, it ranks after meningitis and sinus thrombosis in point of frequency.

It is rarely diagnosed but is usually discovered in the course of an operation in cases of acute mastoiditis or an acute exacerbation of a chronic mastoiditis. It most often occurs as a perisinus abscess and as such is not infrequently associated with sinus phlebitis or thrombosis or both; it also occurs in the region of the tegmen tympani and antri and here it may be associated with a subdural or temporal lobe abscess. Clinically, there

may be no symptoms other than those of an acute mastoiditis. It should be suspected, when there has been continuous headache and severe pain over the affected side, associated with insomnia; with marked surface signs over the mastoid and especially significant is the history of a profuse otorrhea with a sudden stoppage. Examination of the spinal fluid will show the findings of Type 1 meningitis, the cell count being relatively low, between 50 and 200 cells.

The surgical management of extradural abscess is extremely important. 1, the treatment of these cases unassociated with other intracranial complications is simply one of adequate drainage. 2, when associated with periphlebitis without signs or symptoms of sinus thrombosis, provide sufficient exposure of the sinus and drain perisinus abscess. 3, when associated with sinus thrombosis, the internal jugular vein should be ligated above the common facial before opening the sinus; the sinus is incised parallel to its long axis; hemostasis is secured by packing gauze between the bone and the sinus wall proximally and distally; the clot is evacuated and free bleeding established, if possible, from both the torcular and bulbar portions of the lateral sinus is packed with gauze.

What is the safest method of procedure, where the spinal fluid shows signs of meningeal irritation? It is important to recognize that the dura is the "danger line," that as long as we keep our surgical procedure external to the dura we are outside of the "danger zone," but if we carry infection through and beyond the dura, when none is present, we then infect the subdural, or subarachnoid spaces or the brain, and thereby may cause our patient an irreparable injury. Therefore, in the cases with Type 1 meningitis, it is expedient to plan a two stage operation; 1, drainage external to the dura, 2, incision of dura and drainage internal to dura. The first stage operation will only be needed when an extradural abscess is unassociated with a subdural or brain abscess, as both the spinal fluid findings and symptoms will show immediate and continuous improvement after drainage of the extradural abscess. However, when the extradural abscess is associated with a subdural or brain abscess, there will be little or no improvement following the first stage operation. A slight but temporary improvement of the general symptoms should not be allowed to misguide us as to the pathology

present, especially when there is not associated a marked and continuous reduction in the spinal fluid cell count. This would indicate that there is still present a suppurative focus causing meningeal irritation that had not yet been located and we are then justified in performing the second stage operation.

5. *Labyrinthitis*. Only eight cases of manifest labyrinthitis, i. e., cases with spontaneous labyrinthine symptoms, were observed which was less than 1% of the total number of suppurative media cases. No doubt many cases of latent or chronic labyrinthitis had been overlooked for want of not having had the labyrinthine tests performed. Of the eight cases, five were acute, two serous and three suppurative and three were paralabyrinthitis cases. We are unable to differentiate a serous from a suppurative labyrinthitis except by the outcome of the cochlear and vestibular function which is completely and permanently destroyed in a suppurative labyrinthitis. Labyrinthitis is characterized by involvement of the end organ of the cochlear nerve which results in deafness and tinnitus and by involvement of the end organ of the vestibular nerve which results in loss of equilibrium, vertigo, nystagmus, nausea and vomiting. In labyrinthitis, the eyes are pulled over towards the side of falling by the slow component of the spontaneous nystagmus, while the quick component is towards the normal side. In cerebellar nystagmus, the slow component is away from the side of the lesion and the quick component is towards the lesion. In a labyrinthine nystagmus, the duration is but two or three days while a cerebellar nystagmus lasts longer and tends to increase in severity whereas the former diminishes. In labyrinthitis, the arms held out in front of the body will deviate toward the side opposite the direction of the spontaneous nystagmus and the direction of the deviation and of the falling will change with the change of position of the head. While we have disturbance of equilibrium in lesions of the labyrinth and cerebellum, in the former, it is an end organ lesion and in the latter a central lesion. The distinguishing feature is that the falling, past pointing, and deviation of the extremities in labyrinthitis may be influenced by a change of position of the head.

The treatment of labyrinthitis is a question of diagnosis. The acute serous type associated with acute suppurative otitis media should be

treated as we treat the latter condition, viz, free incision of the drum membrane, to secure external drainage; inflation of the eustachian tube to secure internal drainage, hot fomentations to ear, cathartic and rest in bed. If this does not provide adequate drainage, or if acute mastoiditis is present, posterior drainage should be obtained by simple mastoidectomy with antral tube drainage. We do not operate on the labyrinth in the acute serious type, i. e., where there is not complete suppression of vestibular and cochlear function. However we do operate on the labyrinth in acute suppurative labyrinthitis in which there is a complete suppression of the vestibular and cochlear function associated with symptoms and spinal fluid findings of meningitis. It is here that Neumann's labyrinth operation is indicated with the establishment of drainage of the meninges at the internal auditory meatus.

In the paralabyrinthitis cases, a radical mastoid operation is indicated. If necrotic bone of the bony capsule of the labyrinth is found it should be removed taking care that the intact membranous labyrinth is not disturbed.

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BIBLIOGRAPHY

1. Yerger, C. F.: Meningitis of otitic origin, J. A. M. A., lxxx 1924, (Dec.) 1922.
2. Plaut and Schottmüller; Leitfaden zur Untersuchung der Zerebrospinalflüssigkeit, quoted by Strauss, I.; Meningitis Sympathetica, Am. J. M. Sc. CLIV, 748 (Nov.) 1917.
3. Eagleton, W. P.; Operative Treatment of Suppurative Meningitis, Laryngoscope XXXII, 1 (Jan.) 1922.
4. Singer, Harry A.; Spinal Fluid Changes in Inflammation of the Brain and Meninges of Oto-rhinologic origin. Tr. Chicago Oto-Laryn. Soc., 1923.
5. Freund: Arch. f. Psych., 20, 1889.
6. Ballance: Surgery of the brain and its membranes. 1908.
7. Sowers, Alva: Temporo-sphenoidal abscess following mastoidectomy with recovery, E. E. N. & T. Monthlt., Dec., 1922.
8. Macewen: Pyogenic infective disease of the brain and cord, 1893.

BRAIN INJURIES AND ESPECIALLY INTRACRANIAL HEMORRHAGE AND CEREBRAL EDEMA IN THE NEW-BORN.*

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Within recent years, interest in the subject of intracranial hemorrhage in the new-born has been stimulated by the observations of numerous investigators. After Mr. Little, in 1843, in his first monograph upon the subject of cerebral spastic paralysis, stated that the chief causes

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were lack of cerebral development of obscure origin and a former meningo-encephalitis, the diagnosis of Little's disease has comprised those hopeless conditions almost to the exclusion of the ones due to an intracranial hemorrhage at the time of birth; Mr. Little became well aware of this most frequent cause as indicated in his second monograph upon the subject in 1862, but unfortunately these later observations have been practically overlooked in the literature. In recent years, the studies of Green, Grady, Sidbury and Warwick have been very instructive.

A number of years ago, in 1913, I became interested in the chronic condition of cerebral spastic paralysis in its various forms with and without marked mental impairment and it was very impressive at that time and during the past ten years to note repeatedly in the histories of a large percentage of these patients—the ones having an increased intracranial pressure as disclosed by the ophthalmoscope and more accurately by the spinal mercurial manometer—that they were chiefly first born, full term males, the majority of them having had a difficult prolonged labor with and without the use of instruments and that during the first week and even two weeks after birth, they had been considered rather drowsy and stuporous with a lack of the normal demand for food and even refusal to nurse and in many of them the history of twitchings of the orbital muscles and of the hands and legs or even generalized stiffenings to the degree of convulsive seizures. After a period varying from several days to two or three weeks, the baby rapidly improved and was considered a normal child at the end of one month after birth and continued to be so apparently until several months later—usually about the seventh or eighth month, when it was observed that the child was not holding up its head nor attempting to sit up and frequently at this time a spasticity appeared in the arm and leg of one or of both sides; later, when the child did not walk or talk or, if at all, until months after the usual time, this chronic condition developing in an apparently normal child was most puzzling and frequently the diagnosis of Little's disease implied a tainted heredity and lues as the etiological factors in the lack of development.

The chief reason for this confusion in the diagnosis has been the vagueness and even lack of marked clinical signs indicating the acute

lesion within the first ten days after birth in the majority of these patients, with the exception of the extreme cases in which the intracranial hemorrhage and the associated cerebral edema were most extensive and to a degree endangering and even causing their early death; the milder cases of less extensive hemorrhage survive after a period of ten days to two weeks during which the clinical signs of a possible intracranial lesion are most meagre. (This clinical difficulty of accurate diagnosis of the acute condition in the newborn will be considered later in the paper.) And the second factor in the tardy recognition of the intracranial lesion in the chronic cases has been due to the fact that the babies surviving the acute condition have been considered, and often are apparently, normal for a period of months after birth until the seventh or eighth month and even later when the spasticity of one or more of the extremities of varying degree appear—the child not holding up its head, sitting up and later walking and talking as it should,—at a time when the patient has often drifted to another physician other than the obstetrician, so that the vague clinical signs of the intracranial condition at birth, even if suspected, are not correlated with the later clinical findings of physical and mental retardation, and therefore the diagnosis of the later chronic intracranial lesion has at best been only a tentative one and more often the condition has been ascribed to some mysterious lack of development of cerebral tissues, heredity, lues, etc.—hopeless conditions and much to the dismay of the parents on account of the fear of having future children.

That the condition might be the result of an intracranial hemorrhage at the time of birth was very improbable, as it was believed and taught that intracranial hemorrhage was of such an extensive character and of such great danger to the life of the new-born that the baby usually did not survive. The earlier study therefore of the acute condition of intracranial hemorrhage in the new-born was limited chiefly to post-mortem examinations and therefore to the study of the extreme condition sufficient to cause death at the time of birth or within several days after birth. During the past ten years, I have had the opportunity to examine both at operation and autopsy, the brains of a large series of these chronic cases of cerebral spastic paralysis having

a definite increase of the intracranial pressure and the pathology has been practically the same—"wet" edematous brains under varying degrees of increased pressure and along the supracortical veins in the sulci has been demonstrated the cloudy whitish new-tissue formation with a fibrous thickening of the walls of these veins—the organization-residue of a former layer of supracortical hemorrhage which had occurred most probably at the time of birth and of larger amount than could be entirely absorbed by the natural means of excretion. Since it has now been proven that over 80 per cent of the cerebrospinal fluid is normally excreted through the walls of the supracortical veins, the partial blockage of this main channel of excretion of the cerebrospinal fluid by the organization-residue of a former hemorrhage in these patients explains the "wet" edematous conditions of the brain under varying degrees of increased pressure and the resulting spastic paralysis in its various forms associated with a mental retardation of varying degree. The treatment of these chronic conditions can, at best, be directed only toward an improvement—lowering the increased intracranial pressure, the use of orthopedic measures and mental training.

During this same period of ten years, I have had the opportunity of examining in consultation and treating 46 new-born babies within the first ten days after birth. The signs of an acute severe intracranial lesion were very evident: stupor and coma, refusal to nurse and convulsive twitchings. Lumbar puncture in these early cases revealed bloody cerebrospinal fluid under varying degrees of increased pressure and repeated lumbar punctures of spinal drainage in the milder cases or the modified subtemporal decompression of cranial drainage in the more severe cases made possible a recovery of life in a small percentage of them. One of the patients in this series on the third day after a difficult instrumental birth appeared to be a normal baby with the exception of spasmodic twitchings of the left orbital muscles two and three times each hour; careful neurologic examination was negative, but a lumbar puncture was advised merely to confirm these negative findings so that the parents could be assured that no intracranial complication had occurred. Two hours later and before the lumbar puncture was performed, the baby suddenly died and at autopsy there was

disclosed a supracortical hemorrhage of over one inch in thickness upon both cerebral hemispheres—the longitudinal sinus having been torn at the posterior margin of the anterior fontanelle. This case and the mildness and even apparent lack of the definite signs of severe intracranial hemorrhage in the other acute cases as disclosed at both operation and at autopsy led to the belief that possibly an intracranial hemorrhage of mild degree at the time of birth did not produce marked clinical signs of its presence owing to the less highly developed cortical cells at this early age and that possibly the complication of an intracranial hemorrhage at the time of birth was of more common occurrence than ordinarily suspected. To determine the frequency of this complication in the new-born, permission was obtained from Doctors F. A. Dorman and Wilbur Ward to perform a routine lumbar puncture upon a series of consecutive new-born babies at the City Hospital, Welfare Island. In the first series of 100 consecutive new-born babies,* there was bloody cerebrospinal fluid in nine; two of these babies died and at autopsy there was revealed a large ventricular hemorrhage in one and a mild subarachnoid hemorrhage with extensive cerebral edema in the other. Repeated lumbar punctures of spinal drainage at intervals of 12 hours were sufficient to make the cerebrospinal fluid clear and under normal pressure in the remaining seven cases. No instruments had been used in these nine cases; one was a version with breech extraction; in two, the cord was about the neck. The coagulation time was normal in each of the nine cases.

In a recent report of this first series of 100 consecutive new-born babies,* the statement was made that no untoward signs had been observed as the result of the test of lumbar punctures; since this report, however, one case has occurred meriting discussion; at consultation with Doctor S. Swift concerning a new-born male of four hours of age having a large cephematoma of the left parietal area following difficult forceps delivery, a lumbar puncture was advised to ascertain the presence or not of an intracranial hemorrhage—suspected on account of an apparent fracture of the right vault, divergent strabismus and a possible weakness of the left side of the body. The general condition was a seri-

*Sharpe, William. Intracranial Hemorrhage in the New-born. J. A. M. A. Vol. 81, No. 8, August 25, 1923

ous one in the presence of shock and yet the cry was lusty. After the lumbar puncture and the removal of 5c.c. of bloody cerebrospinal fluid under a pressure of only 3mm. Hg., the baby's general condition rapidly became worse in that the shock increased, the cry weakened, the cyanosis deepened with cold extremities and pinched facies and shallow respiration. Death occurred 8 hours after birth. Necropsy disclosed a large subpericranial hematoma of at least 8 oz. over the left vault and a multiple linear fracture depression of the entire right parietal bone. Along the supracortical veins in the sulci of both hemispheres was a small amount of dark free blood and not of sufficient amount to cover the convolutions. No gross laceration was found. This case is very suggestive. In the presence of definite shock in the new-born, just as in adults having acute brain injuries, no examination and tests should be performed until the shock has subsided; the treatment should be directed entirely to the shock and if the patient cannot survive, surely no examinations and tests, and by no means an operation, will be of aid, but rather an added shock. The fact that the spinal pressure was only 3mm. Hg., together with the clinical picture, confirms the diagnosis of shock in this case. The post-mortem findings of free blood along the supracortical veins in the sulci confirm the observations made in other acute cases and support the belief that if this free blood cannot be entirely absorbed, then an organization-residue occurs in situ with the resulting partial blockage of the excretion of the cerebrospinal fluid—the usual pathology in the cases of cerebral spastic paralysis having an increased intracranial pressure and due to an intracranial hemorrhage at the time of birth.

The second series of 100 consecutive new-born, upon whom a lumbar puncture has been performed by my associate, Dr. A. S. Maclaire, within 24-48 hours after birth, has just been completed. Bloody and blood-tinged cerebrospinal fluid was disclosed in 13 babies—that is, in 13 per cent and there was no fatal case. In the blood-tinged or bloody spinal fluid, repeated lumbar punctures every 24 hours were performed until the fluid was clear; in only 3 cases was this not accomplished. One case, a medium forceps, the second of a pair of twins, at the first puncture had a manometric reading of 8 mm. Hg.; 6 cc. of bloody spinal fluid was removed the first day;

four more punctures were performed at 24-hour intervals and only 1 or 2 cc. was obtained at each tap and the child left the hospital with the spinal fluid still blood-tinged. The second case was the child of a 4 plus syphilitic woman who had been in labor five days and finally delivered as a breech; the initial spinal pressure was 6 mm. Hg. and 5 cc. of bloody spinal fluid was removed the first day; two more taps were made 24 and 48 hours later when only a few drops of bloody fluid escaped; this case also never had a clear fluid during its hospital residence. The third case was that of a face presentation; the first manometric reading was 4 mm. Hg.; only 1 cc. of bloody fluid was obtained on lumbar puncture; another puncture 36 hours later yielded a few drops of spinal fluid which was less bloody than the initial tap showing that absorption had well progressed and that the hemorrhage was probably extremely small. The second case showed twitches of the hands and the third case had twitches of the face, mouth, hands and feet, also cyanosis of the face; the twitches ceased after the initial tap in the second case and on the fourth day in the third case.

In four cases, one puncture was sufficient to drain the hemorrhage in that the second puncture was clear. In two cases, two punctures were required; in one case, three punctures were necessary; in another, four punctures were performed and in still another five punctures.

The intracranial pressure in the 13 bloody cases, ranged from 4 mm. Hg. to 26 mm. Hg. and was as follows: 4 mm. Hg. in five cases; 6 mm. Hg. in one case; 8 mm. Hg. in three cases; 10 mm. Hg. in two cases; 12 mm. Hg. in one case and 26 mm. Hg. in another. The blood-clotting time estimated in nine within the first 24 hours, two between 24-28 hours, one at 53 hours of life and one 15 minutes after death and in these 13 cases it was as follows: 7 minutes in one case, $7\frac{1}{2}$ minutes in two cases and in the other 10 cases the time ranged between 4 to $6\frac{1}{2}$ minutes. (The normal is 5 to 8 minutes.) In one of these cases the mother had a 4 plus blood Wassermann reaction, while the child's cord Wassermann was negative. In another, the mother had a 1 plus blood Wassermann and the child was negative. Of these 13 bloody cases, 6 were normal cephalic deliveries, 3 prolonged labors, 2 of which terminated as

cephalic presentations, and 1 as a breech; 2 medium forceps deliveries, one of them the second of a pair of twins, one a face presentation and one the child of an eclamptic mother. The anterior fontanelle in these 13 bloody cases was flush in seven cases, bulging in three, depressed in one, and not recorded in two. The anterior fontanelle was in no way indicative of the spinal pressure obtained. Only two of these babies had the mildest of signs, namely, twitchings of the face hands or feet and cyanosis of the face. None of the marked signs, such as convulsions, stupor, spasticity, failure to nurse, etc., were present. Eight were first born, three the second, one the seventh and one the twelfth; twelve were males and one was a female. One case, which was a medium forceps delivery, had bloody spinal fluid and developed jaundice on the third day with a temperature of 102 degrees F. The blood clotting time lengthened from 4½ minutes to 6 minutes. Four lumbar punctures were necessary to obtain clear spinal fluid. Further study must be made of the relationship, if any, between intracranial hemorrhage and jaundice and the allied icteroid conditions; whether the absorption of hemoglobin of an intracranial hemorrhage can produce the clinical picture of a mild degree of icterus has not been definitely proven.

CONCLUSIONS

1. The fact that bloody and blood-tinged cerebrospinal fluid was found in 9 per cent in the first series of 100 consecutive new-born and in 13 per cent in the second series would tend to indicate a much more frequent intracranial lesion at the time of birth than ever conceived.

2. Lumbar puncture as a diagnostic and therapeutic measure has proven to be a safe procedure in these series in the absence of shock, and it is advocated in suspected and doubtful cases having the mildest signs of intracranial hemorrhage and cerebral edema.

3. Repeated lumbar punctures of spinal drainage are advocated every 6 to 24 hours in cases having bloody cerebrospinal fluid under varying degrees of increased pressure; if spinal drainage fails to diminish the blood concentration and to lower the increased pressure of the cerebrospinal fluid, then a modified subtemporal decompression of cranial drainage is indicated.

4. Death results from extensive intracranial hemorrhage and cerebral edema in the newborn;

unless the hemorrhage can be entirely absorbed by the natural means of excretion without any resultant organization-residue, unrecognized and therefore improperly treated cases of the milder degrees of intracranial hemorrhage develop later, in a large percentage, some form of cerebral spastic paralysis with varying degrees of mental impairment. This chronic condition can at best be only improved, whereas the acute condition at birth is the ideal time for treatment and many of these acute cases are now being overlooked.

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MENTAL CONDITIONS ASSOCIATED WITH DISEASE OF THE BRAIN AND CRANIAL NERVES OF SPECIAL SENSE*

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I.

The brain is structurally the most complex organ in the human body. It is for this reason the most highly specialized physiologically. Other specialized organs such as the lungs, the liver or the kidneys possess each just one function peculiar to itself which is performed by that entire organ. Not so in the case of the brain. Its functions are not only diverse and manifold, but so extensive and all embracing that no part of the human organism can function properly without its domination and regulating influence. Moreover, no part of the perceptible physical universe is beyond the reach of its impressionability and conception.

These facts become more evident when we seek to determine brain function from its appreciation of the various stimuli applied to the periphery and its ability of their interpretation and evaluation. General stimuli, such as tactile and thermal stimulation, or special sensory concepts, such as appreciation of aromas, color, taste, sound or weight in their various degrees and shadings, are each represented by special centers in the brain-mass which is arranged in strata or anatomical levels, each level having a physiology all its own. These are closely connected and interlaced with every other center by association fibers which, normally, transmit instantaneously and most accurately the nature of the slightest peripheral stimulus to the upper

*Read before Chicago Medical Society, April 2, 1924.

cortical centers for discrimination and judgment. These centers constitute the sensory cortex.

Motility is the response to peripheral stimulation from the environment. Motion is governed by motor centers grouped in definite areas in the brain cortex, which control the action, extent and intensity of muscular movement in the execution or application of effort.

The known sensory and motor cortical areas are spheres of consciousness of sensation and motion, respectively. But there are many other functions of which the brain is capable, such as mentation, ideation, calculation and emotion, the center groups or precise areas of which are as yet unexplored. These are called the silent areas of the brain. They will yield their secret gradually as we go on unrestrained, thinking and searching further into the structure of the universe, unearthing and unfolding hitherto unobserved forces and phenomena. The human brain is capable of imagination, thought and inquiry. It is the co-ordinate balancing of this trinity that enables man to adapt himself to the environment in which he lives, moves and finds his being. Co-ordinate adaptation and fitness constitutes sanity; that is, normal mentality controlled by a normal brain.

There are in the brain organs such as the pituitary and pineal bodies, the lenticular nucleus and others which influence metabolism, growth and muscle tone through interconnecting pathways of the sympathetic or automatic nervous system with extracranial internal and external secretory glands. The origin of the sympathetic nervous system is from the sacral, dorso-lumbar and cranio-cervical levels of the cerebrospinal axis. It supplies and regulates the activity of all involuntary muscle organs, the viscera, the genital apparatus and the entire vascular system. It controls the action of internal and external secretory glands, vascular and emotional reactions.

The anatomical structure and the functions of the cerebellum and the medulla are too numerous to mention in this paper, except that they contain centers for locomotion, equilibrium and regulate respiration, body temperature, vascular tension, deglutition, palate and vocal cords tonus and sympathetic nervous reactions.

The above anatomically proven and physiologically tested facts have been briefly reviewed for the purpose of calling attention to the numer-

ous parts and physical components necessary in the construction of the human thinking machine—the brain. Its innumerable cells, their complex arrangement, their grouping and stratification, their atomistic and molecular qualities, visible and invisible, known and unknown, evolve phenomena of consciousness in each individual according to his particular conception powers and qualities of impressionability from the environment. This consciousness is continuous and is more partial to certain impressions than to others by peculiar predilection and selection. The selectivity or selective quality of consciousness is responsible for the retentiveness of images or sensations—memory. Thus there is a direct and constantly intimate relationship between the brain and consciousness. The one bears to the other the relation of cause and effect. Just as muscular irritability results in a state of contractility, so cerebral activity results in consciousness; that is, thinking goes on. Or, as James puts it, "The immediate condition of a state of consciousness is an activity of some sort in the cerebral hemisphere."

In the course of human development and growth, mental acuity and stability are constantly in a process of acquisition of impressions. Normal mental states are the product of a normally constructed and co-ordinately developed brain. Conversely, an abnormal mental phenomenon is an expression of a defective brain cortex, or, rather, incoordinate arrangement of brain cells; for there is nothing in the cranial vault but brain tissue. "All nervous centers," says Dr. Hughlings Jackson, "from the lowest to the very highest (the substrata of consciousness) are made up of nothing else than nervous arrangements, representing impressions and expressions . . . I do not see of what other materials the brain *can* be made."

II.

Since coordinate mentality appears later in the course of development, it follows that when a degenerative process in the brain sets in, mental function is the first to suffer. The known disintegrating processes in the brain are:

1. Vascular changes.
2. Toxic degeneration.
3. Exhaustion.
4. Inflammation due to infections.
5. New growths.
6. Trauma.

It behooves medical men to study the symptomatology of these conditions in their entirety and to regard the mental changes associated with brain disease as fully, if not more, important as parietic states and other greater or lesser physical disabilities. Indeed, in many instances an alteration in the patient's mental condition is a forerunner to a physical disaster. In arteriosclerosis of the brain, which really causes a gradual but progressive malnutrition of the brain substance, the highest cortical function—mental agility—suffers first. The thought process becomes slow, memory is dull, movements are deliberate, awkward or clumsy, and paraphasias or temporary and recurrent aphasias appear.

The importance of eliciting a detailed history in presenile or senile patients cannot be over-emphasized. Inquiry should be made as to irritability, impatience, insomnia, confusional states, amnesias, vertigo and headaches. One need only to recall the blood supply of the brain and the pathology resulting in its cellular elements from an impaired arterial supply or venous return, and one will readily comprehend the dangers with which arteriosclerosis of the brain is fraught. While vascular deterioration is a generalized condition, it is frequently regional in its distribution. The renal, the coronary and the cerebral blood vessels are the most vulnerable. But in no instance is the mischief wrought by atheroma and thrombosis as great and as disabling as in the case of the brain because, firstly, in the brain vascular anastomosis is scant; and, secondly, because of its extremely delicate and complex cellular arrangement and organization, the least anatomical damage or nutritional decline, results in an extensive impairment of the highest and most delicate function—mentality. The alert examiner will recognize the extent of the malady more distinctly from the early appearing mental change or clouding of consciousness than from an increased knee jerk or a reduced Achillis reaction, which make their appearance much later. The early recognition of cerebral vascular changes is more than of academic value. A careful study of arterial tension, retinal findings and changes in the patient's mental attitude and personality is a reliable guide to prophylactic, hygienic and medicinal therapeutics.

III.

Poisons have a destructive effect on all tissues, especially on neuronie structures. Their high functions are readily impaired by the deleterious agents in the blood stream which carries nutrition to and removes waste products from every cell and fiber in the nervous system. The irritating molecule, as it comes in chemical relation with the nerve cell, produces edema and swelling of the cell, which if not absorbed, is followed by impoverishment of the protoplasmic element, and later, as it invades the chromatin substance in the cell body, affects ultimate cellular degeneration. This is briefly the chronology of the death-dealing process of toxic poisoning. Alcohol, narcotics, diabetes, arsenic, mercury, lead, and various gases are some of the most common toxic agents producing psychoses of various degrees and duration, depending on the absorptive power of the brain and meninges, which react to these toxins with edema and swelling. The acute irritative stage is manifested by headache, restlessness, mental irritability and insomnia, which are the earliest appearing signs in toxic cases. Early recognition of these phenomena aid in tracing the origin of cause and therapeutic application. Further aggravation of toxic processes may produce more intense mental manifestations such as delusions, hallucinations, euphoria, depression, epileptiform seizures and coma, all of which are indices of the pathological changes taking place in the midbrain and cortical substance. It must be stated at this juncture, however, that, while a virulent toxic saturation will destroy even the most resistant organism, the usual type of personality that succumbs to alcohol and narcotics is essentially of an inferior neuronie texture. Alcoholics and narcotic addicts usually come from the ranks of constitutional inferiors and inadequate personalities who shrink from contact with the rugged edges of strenuous life. They escape this by seeking leisure and repose in the cup of joy or narcotic oblivion. Whether their susceptibility is due to a general constitutional defect or an inferior brain, is a question open to discussion.

IV.

The mental disorders not due to a recognizable organic cause, do not properly come within the scope of this discussion. Yet, must they be alluded to here: firstly, in order to emphasize

the importance of the invisible etiology which causes them; and, secondly, to stress the significance of the early appearing symptoms, which, if recognized as danger signals forewarning a brain-storm, by anticipative measures, will save a life otherwise doomed to a living death, temporary or permanent. In the study of these cases one must begin with the great-grandparents of the patient. Atavistic taints of mental disorders may remain latent in two or three succeeding generations of apparently normal members of the family and then show themselves in no unmistakable form. The affected offspring is said to be susceptible to mental disease through an inherited tendency. Still, this susceptibility is frequently recessive to the normal if the provocative factors of insanity are anticipated and met early. The main factor among the exciting causes of atavistic insanity is exhaustion. Exhaustive states not infrequently follow in the wake of febrile diseases, malnutrition, overwork, mental stress, loss of blood, pregnancy and parturition. Excessive waste products accumulated in the system and not absorbed or eliminated for the want of rest, act as irritants to the delicate nervous structure, causing cellular hyperactivity first and sluggish mental reactions later.

These abnormal mental states may not occur in individuals in whom heredity or atavistic susceptibility does not exist as a predisposing factor to a mental upset. No definitely visible pathology can be said to be present in the insanities not directly due to organic lesions. The mental disorder is attributed to an inferior nervous system which is susceptible to structural disarrangements and cellular instability.

Cerebral meningitis frequently leaves its damaging effect upon the mental condition of the patient. Encephalitis, though its residuum is manifested mostly by muscular rigidity, tremors and various palsies, almost always involves also mentality. There are no manifestations of mania or dementia in these cases, but there are definite mental changes which are directly due to the meningeal or cerebral disease from which the patient had recovered. The essential difference in the after effects on the patient, between meningitis and cerebritis, is that in the former the extent of the residual disability depends on the variety of the meningeal infection, the degree of involvement, the location of the inflam-

matory process and the manner of infection; that is whether by extension or by the vascular route. In most cases of recovered meningitis the only residuals are headache, periodic mental fatigue and instability. Whereas, in encephalitis, which is a parenchymatous brain disease, the infection in recoverable cases is invariably localized and residual physical disabilities depend on the locality involved. Yet, because of the erstwhile destructive inflammatory process, mentality remains different and abnormal.

v.

Perhaps in no other brain disease is a careful analysis of psychical changes as important for diagnostic and even for localizing purposes as in brain tumor. Certain localities cause special mental alterations. Prefrontal lobe tumors tend to produce euphoria, facetiousness, flight of ideas, and a tendency to joke and frolic. Frontal lobe tumors produce the same mental changes to which are added impairment of attention, difficulty of perception, a slowing of the thought process and memory defects, though there is no apparent clouding of consciousness. Other mental symptoms are lassitude, listlessness, apathy, and lack of initiative. Hallucinations of smell indicate olfactory tract involvement. Hallucination of sight points to occipital cortex localization, while those of sound, for temporal lobe involvement. As is well known, severe headache is a prominent sign of brain tumor. Patients suffer intensely during a paroxysm, and yet when relieved for a while, they do not seem to worry over their condition. Other patients show paranoid trends, depressed states and even melancholic suicidal tendencies. The latter appear usually in small tumors located deep in the cortex which cannot be localized by neurological tests. Some patients are excitable, irritable, capricious, while others appear to be entirely unconcerned with the outside world. They are disoriented as to time and space. Thought process is slow and sluggish; they are indifferent and apparently oblivious to surroundings. Some observers hold that "in right-handed tumors, the psychical disturbances are more frequent."

The psychic phenomena appear far in advance of focal symptoms. Their early recognition is of decided diagnostic value, even though the pathological process may at this time not be localizable, or, if the tumor is localized, it may not be removable by surgical means.

Moreover, in cases of frontal lobe tumors which are removable and the patient makes a full recovery, the mental disorder persists. These patients are apprehensive, irritable, shunning society, introspective, sensitive, fretful, emotional and amnesic. While they are free from headaches, vertigo and vomiting, they complain of insomnia and restlessness. They are not infrequently paranoid and melancholic. These mental defects can be due to nothing else than to cellular disarrangement caused by the encroachment of the removed neoplasm.

Such and similar persisting abnormal mental states follow also recovery of paralysis caused by vascular accidents, especially cerebral hemorrhage. The mental irritability associated with hemorrhage causing hemiplegia is well known. After a maximum absorption of the hemorrhage the paralysis may clear up almost entirely, but the mental defect brought about by the brain lesion persists.

VI.

Traumatic psychosis may follow injury to the head directly affecting the brain. Not all head injuries involve the brain, but trauma to the head may produce a psychosis even though there is no demonstrable brain pathology. The shock of the trauma, accompanied by a short period of unconsciousness appears to be the offending cause. The individual becomes desensitized for a greater or lesser period of time. Headache, dizziness, irritability, impatience and fear of permanent disability and helplessness are the cardinal features which make up the disturbed mental state. This may follow some time after the injury and gradually produce sensory and motor disturbances which are exaggerated through fear and frequently render the victim inefficient and helpless. A striking change in the personality takes place. The individual becomes moody, depressed and emotional. He is intolerant of ordinary noises and even familiar sounds. He feels constantly fatigued and resents any suggestion that he make an effort to resume some form of light occupation, if only for pastime. He prefers isolation and inactivity, thus confirming his phobias and fixing his disabilities.

Many of these patients are stigmatized as malingerers, especially where compensation for injury is a consideration. Yet must it be recognized that shock alone is capable of producing these abnormal mental phenomena which are

often observed also in post-operative cases. These individuals are of decided neuropathic leanings in whom the trauma acts as an exciting cause of the psychosis. The psychosis, according to certain observers, is attributed to vasomotor disturbance in the brain, which may account for this complex.

VII.

The olfactory, the optic and the auditory nerves are purely sensory, each pair possessing a special sense; that of smell, vision, and audition, respectively. Anatomically they are made up of crossed and uncrossed fibers from the cerebral hemispheres. They differ from all other nerves in that they are practically prolongations or lobes of the brain. Structurally, these nerves are less resistant in consistency than peripheral nerve trunks.

It is obvious that each of these nerve organs has a specific physiology. Disease processes, likewise, produce specific disturbances of function. The time allotted to our theme permits only a remark or two on the mental conditions associated with disease of these cranial nerves of special sense.

Numerous psychogenic olfactory disorders are cited in the neo-psychiatric literature. Hallucinations of smell and olfactory auras in certain types of the epilepsies are known. But one does not encounter clinically or in the literature instances in which disease of the olfactory mechanism is causative of mental disorder. The relation between offensive odors and vomiting in neuropathic individuals, or the manifestation of psychogenic reactions in hay fever patients, must be construed as causes of olfactory sensitization rather than a result of disease. Impairment or loss of smell resulting from ethmoiditis, fractures or local olfactory disease does not produce a mental change.

Quite different is the case in the instance of optic nerve disease, especially in retinal hemorrhage. Apparently owing to the suddenness of the vascular accident, the patient suffers a tremendous shock. He becomes morose, depressed, melancholic and extremely irritable. These patients seek retirement and seclusion. For months they decline to see their friends and prefer hermitism. Even where there is no retinal detachment and vision is good in the other eye, the patient broods over the occurrence and is given to outbursts of exasperation and anger.

Insomnia is the rule. Like cerebral hemorrhage cases, these patients turn night into day for sleep. For years after maximum absorption of the hemorrhage has taken place, a mental change is evident.

Even greater mental changes and actual psychosis appear in involvement of the auditory nerve. The intricate anatomy of the acoustic apparatus and its correlation to other mechanisms such as head movements, sound alterations, respiratory changes and psychical reactions, make the study of the relationship of mental conditions to auditory involvement a quite comprehensive one. The most familiar auditory phenomenon that is associated with psychical disorders is tinnitus. As a rule, when not due to middle ear disease, tinnitus is a manifestation of a degenerative change in that part of the brain which contributes to auditory pathways, chiefly the quadrigeminal and the median geniculate bodies. In cases of severe tinnitus, even when hearing is but very slightly involved, the irritative brain lesion which causes the head noises is an indication that similar degenerative processes involve also psychic spheres. Hence tinnitus is only a subjective sensory manifestation of the objective psychic disorder. The irritability, depression, restlessness, emotionalism, paranoid and melancholic states which patients with tinnitus show, may be due to the same cause which produces the tinnitus. This view is supported by the fact that many patients who have had head noises for many years and deafness results only after the auditory irritative lesion had become a destructive one, do not show a psychical change until quite late after the tinnitus had appeared. The vulnerability of the auditory nerve makes it susceptible to a degenerative change, while the resistant psychic centers do not yield until much later. Thus tinnitus and psychosis may co-exist as a result of the same cause.

SUMMARY

1. Every brain lesion is accompanied by a greater or lesser mental defect.

2. Irritating poisonous substances coming in chemical relation with brain cells, if not absorbed or eliminated, produce a pathological change in the cell elements.

3. Inferious nervous system, under stress, are subject to cellular instability, structural disarrangement and mental upset.

4. Change of personality or psychic alterations appear far in advance of focal symptoms in every case of progressive brain pathology.

5. Normal mental states are the product of a normally constructed and coordinately developed brain. Conversely, an abnormal mental phenomenon is an expression of a defective brain cortex or incoordinate arrangement of brain cells.

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CHINA AND CHINESE THERAPY*

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China, with almost a fourth of the world's people living in it and its dependencies, presents a subject of great interest and attraction. It is a country of great antiquity, a civilization probably antedating that of any other, with the exception of Egypt and Mesopotamia, and a government that has carried on continuously for forty or fifty centuries. Within the last few years she has changed her system of government from that of a monarchy to that of a republic. Since this change, she has wobbled and staggered and lurched and, it appears, has well nigh fallen, but still she strives to adjust herself to Western ideas and modern methods of thought. Be it so, she has a great deal to commend her to the thoughtful consideration of modern people for the perpetuity of the government she formerly had and for her contributions made to the list of inventions, which we call, modern. A thousand years before Gutenberg of Mayence, Germany, invented movable type, the Chinese were using them, and were printing from characters engraved upon the faces of stone blocks. In the fifth century A. D. this race invented the mariner's compass, and a thousand years before Europe knew anything about gunpowder, this same race was using it in firecrackers and fireworks of various kinds. Silks were used by them at a time of such remote antiquity that it is not known when they first cultivated the silk worm. The historian, Sdwird Gibbon, in his work "The Decline and Fall of the Roman Empire," says that during the palmy days of the Empire silk was worth its weight in gold and was imported from China with great danger and

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great cost. The ceramic art of China is not equaled in the world, with the possible exception of Japan, and her porcelain factories have been running since about the third century A. D. If you play chess, next time remember you are playing a Chinese game dating from about 1200 A. D. and that playing cards were also invented by them at about the same date. At a quiet evening game at home, next time you hear somebody say "Mah Jong" and the "jig is up" for you, as far as that particular game is concerned, blame it on to the Chinese, who invented it many centuries ago. Notwithstanding their inventive genius of the past, their present methods of doing things impress the traveler with their oddities and eccentricities, tinctured with amusement. Instead of the compass pointing north as the cardinal point, it points south. The man wears skirts and the woman pantaloons. Now some of you irreverent may say that it is getting that way in our country, but I feel assured in saying such is not the case. The Chinaman if he owns a horse, which is rare, and wishes to ride, mounts on the off side instead of the near side as we do. The military man wears two swords on his right side instead of one on the left. Instead of having pockets in his clothes he uses his hose for pockets. Instead of carrying a watch concealed somewhere in his clothes, he wears two pinned on the outside of his garment with both open faces showing. He begins to read his book by going to the last page and reading from right to left instead of left to right. If he gets perplexed and puzzled and wants to think deeply, instead of scratching his head like some other races do, he kicks the clog off of his foot and scratches said foot on the sole to stimulate his reasoning powers. In building a house, the roof is first constructed, and the foundation is the last thing to be completed. The kitchen occupies the front of the house, the parlor the back. The carpenter draws the plane toward him to dress the lumber, and the teeth of his saw are set away from him, so that when he works he is always sawing in the direction away from himself. The Chinaman laughs at a funeral and weeps at a wedding. If he is so angry at an enemy that he would like to kill him, he commits suicide figuring that his ghost will return and torment his enemy so much that he will suffer more than by taking his life. In his temple service he burns

incense to his favorite god, and makes offering of his money; not real money; he is too practical for that, but gilded paper in imitation of genuine money. Now while he appears to us very odd in his methods, he thinks ours are just as queer. He is a great farmer inasmuch as his farm has been tilled for forty or fifty centuries and the ground appears to be as fertile as it ever was. The reason for this seems to be that he has made an intensive study of fertilizers and these have been diligently and laboriously applied from year to year so that the ground has not been robbed of its plant-raising properties. As a rule, however, instead of applying the fertilizer to the soil alone he applies it in some way to the plant itself. Naturally, it would be thought that a nation which has contributed so much in the way of agriculture, invention and art to the world; a nation which up to several years ago formed the largest empire that ever existed in the world, if we except the Russian, would as a matter of course excel in many other ways. Not so. There is a want of uniformity of tissue in this mighty realm, and owing to climate, geography, and natural circumstances combined with want of education in the great masses and an overriding superstition everywhere, this aggregation of peoples and provinces and countries falls far below our reasonable expectations. In briefly sketching this outline of impressions, I have had in view a background for their queer ideas in respect to medical therapeutics. Of all civilized countries of the present day, that lay claim to any degree of medical progress, this certainly is the strangest. Progress, if any, is carried on by some few physicians who have studied in America or Europe: the nearly 100 per cent of native doctors are ignorant, credulous and to a high degree superstitious. They are but one jump ahead of the barber or the butcher, and five jumps behind the tailor, builder, merchant and farmer. It seems that medicine is so implicated with superstitions of so many and various kinds, that it has never evolved to any appreciable extent. It is impossible to catalogue in a short paper many of their tenets of practice, but I shall enumerate a few of their methods and beliefs. At the head of their list of drugs, which are council-passed, as we may term it, stands ginseng. Now as far as I am able to discover or find out from investigation, this drug, accord-

ing to western belief, has no therapeutic value at all. The Chinese believe it the great sheet-anchor for all diseases, from an infected finger to tuberculosis. They believe that it gives strength and is a powerful tonic for the old. It is a great power in fevers and septic conditions, and is prescribed at times for almost any disease. It also seems that the Chinese believe in preventive medicine. I had never thought that, because of the fifty-seven different varieties of smell that assailed me in the narrow streets of Canton. But I have learned that if you stew the skins of black cats and dogs, black let me repeat, that it is a sovereign remedy, preventing smallpox, plague, fevers and eruptions. Musk is another remedy of great value in their drug list but it appears not to be valuable as a nerve remedy which many western therapists do believe. They have one drug which we can agree on—and that is rhubarb. This is cultivated and also gathered wild and is, of course, the best kind that is now obtainable in the world's markets. They use it for the same purposes that other nations do. In Chinese apothecary shops they have packets of silk which contain dragon's blood for sale. What this dragon is or what the beast looks like, I am unable to say. I have read that a dragon was a fabulous animal, or in the words of the farmer who saw a giraffe for the first time, "There is no such animal." Another interpretation of what a dragon is or may be is the fossil remains of some prehistoric animals. This explanation is somewhat far-fetched for the reason there can be no blood with these fossils, but for a fact, they do sell and use as medicine a solution of fine grindings from the fossil teeth and bones, which enjoys a high reputation for that "worn out" and "tired feeling." As is well known, the Chinese are the finest carvers of ivory in the world. The dust and fine particles are not allowed to go to waste but are carefully saved, and used to make a decoction, like our coffee is made, and is, according to them, a very valuable remedy for fevers. Powdered bark scraped from rattan is another common therapeutic agent made for fever. Cups made from the horn of the rhinoceros are used in which to make various solutions, to be taken for severe maladies. Also in these cups are placed ground skins and horns which are guaranteed to act as antidotes against the most powerful poisons and give to the patient the qualities

of courage and endurance, which were possessed by the animals which wore the skins and horns. The hoofs of young deer are highly prized because they are believed to give the users great fleetness of foot and it is believed that in the interior of China the victor still eats the heart of his brave enemy to give him courage and fortitude and this is considered the highest compliment to the bravery of a fallen foe. One of their most cherished therapeutic treasures is a gum from certain trees that grow in the immediate vicinity of the grave of Confucius. Another choice drug is pills made of *pingan tan* which, taken at certain intervals, produces a calmness and tranquility of mind that alleviates the distress, the asperities and the difficulties of life. The druggist also keeps in his shop, medicine (composition unknown) which is guaranteed to cure women of vanity and men of talking too much. I should judge this to be a very popular remedy and I do not know what the druggist would say when he got out of it, unless "I have something just as good." Grasshoppers ground up to a dry powder and administered in suitable doses is regarded as a sovereign therapeutic measure in cases of anemia, chlorosis, tuberculosis and lack of vigor. When other means fail, a soup of scorpions adjusted to the symptoms in the case is given to lower fever and mitigate pain in the body and limbs. Their cure of dysentery merits attention from at least the standpoint of novelty, and that is thrusting a needle through the tongue. I never saw this treatment carried out but would judge it to be more drastic than the disease itself. One remedy that they employ seems to stand on the basis of reason and common sense—and that is a tincture made from iron filings and used as an astringent and styptic. Among a people of such limited general education, dominated by superstition and a desire to be free from foreign influences and modern conceptions, we naturally expect to find a people influenced by amulets, charms, and devices of various kinds to protect their mental and physical health. Such is the case, and probably the Chinese are more concerned than either the Indians or Egyptians. The doctors there believe in them as much as the people and his whole system of treatment savors of the superstitious and the mysterious. He is supposed to diagnosticate the sickness by the pulse alone, and if he cannot do so, he is classed with charlatans and fakirs.

If he calls to see a lady, she puts her arm out from under the couch hangings so that he only sees the hand and wrist and having felt the pulse for a short time, he suddenly makes his diagnosis and announces his treatment for the patient. Like the peddler and the barber, he does not keep office but goes about ringing a little bell, so that those desiring his services may avail themselves of them. It is a far cry from these crudities and mysteries of medical practice among the ignorant and superstitious, to the real scientific physician. The latter, though, forms such a trifle in the mass of such a great population that it is almost negligible. But times and conditions are changing in the Far East, not only politically, economically, socially, but even scientifically. Quite a number of men each year, scientifically educated in the few available up-to-date schools, pursue their education in the great universities and colleges of Great Britain, France and America. Our country has several schools, offshoots of our great scientific and medical schools, which have taken root in the land of China which comprises nearly one-third of the continent of Asia. It will take many years to educate enough Chinese physicians both at home and abroad to enlighten this seething mass of millions of people and lift them out of the darkness of mystery, superstition and the worship of idols. There is hope for a people who were dressed in silk at a time when our forbears in Europe were wearing the pelts of animals for clothing. But for their early advancement as compared to other nations, their later advancement is practically nil. At the present time probably the greatest iron and coal deposits in the world are in China. These are not worked to the extent of one-fifth of 1 per cent. In fact, great veins of coal outcrop from the mountain sides and are not even dug into. So few railroads and no way to get to market with the products. Most of their transportation is by the wheelbarrow, and on some roads that, in certain seasons, are ravines and quagmires. "Build no railroads nor let foreigners do it, for that will interfere with our ancestors' graves and with our ancestor worship," they say. So it is easily seen what great difficulties are to be met before China can be brought out into the sunlight of the twentieth century. She is trying to work out her destiny as a republic, instead of a monarchy, which under dynasties

stretching back fifty centuries or more to times of fables and myths has been of late years, at times, totally inadequate. Other nations have suggested and helped and her endeavors have been encouraged. It is hoped that the present time is the crimson dawn of a brighter day that will shed its radiance on this land of strange contradictions on the other side of the world.

UPPER RESPIRATORY INFECTION IN CHILDREN*

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The morbidity and mortality in children from upper respiratory infection during the fall and winter months is nearly equal to that of the gastro-intestinal disturbances in the hot summer months. By upper respiratory infection we mean that condition usually called "colds" with its numerous complications. Nothing definite as to the causative organism has yet been discovered. We find various types of micro-organisms in different individuals. Whether these organisms are the true causative factors or whether some specific bacteria paves the way for these organisms is a matter of conjecture. What we do know is that these "colds" are easily transmitted and at times very infectious. The question of nutrition and body resistance play a negative role. We find this infection in children who are well nourished and kept in the most hygienic surroundings equally as frequent as in their less fortunate neighbors who are poorly nourished and live in poor hygienic surroundings. Who has not had the experience of seeing a person suffering from an acute upper respiratory infection infect all those with whom he came in contact?

The symptoms differ in different individuals. When we see the ordinary "running nose" with its mucous or mucopurulent discharge the condition is easily recognized, in other cases the diagnosis is not so easily made. There are some cases where the onset is sudden with very high fever, extreme prostration, vomiting, loss of appetite, yet on physical examination nothing definite is revealed except possibly a slight redness of the posterior pharynx. In other cases the redness of the throat is extremely marked, the

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tonsils and pillars are infected, there is redness of the soft palate making one suspect a scarlet fever except that there is an absence of the strawberry tongue, rash, and later the peeling. Some cases begin with severe vomiting, pain in the abdomen and diarrhea, a condition called by some "intestinal influenza," by others "winter gastro-enteritis." In a few cases with extremely high temperature there is only a redness of the eardrums with possibly a slight bulging which when incised yields only a small drop of serum.

The high mortality is due to the severe complications which follow the infection. The ear condition mentioned above may be the primary seat of the infection, but is generally due to an extension from the throat. The symptoms from middle ear involvement depend on the severity of the infection. One case which came under my observation had a daily rise in temperature to 106 with return to normal, making one think of a sinus thrombosis. When the drum is incised the temperature would come down to normal to again rise the next day. Daily incision of the drum membrane was necessary for a week before the temperature remained normal. Mastoid infections are common and seen by all. As a rule the infection in the upper respiratory region causes enlargement of the neighboring glands with or without suppuration. We have seen enormous enlargement of the glands of the neck following this infection. Some of these glands broke down and had to be incised. Retropharyngeal abscess may occur and it is a good policy whenever there is an obstruction to breathing to put the finger down the throat and feel for an abscess. In some of the cases there is a boggy feel due to the infiltration of the mucous membrane. We have seen several such cases, some of which finally developed a fluctative mass which had to be incised. While on the subject of gland enlargement let me again call your attention to an observation made by Dr. Brennemann several years ago. Dr. Brennemann found that in many so-called acute bellies, if a careful history is taken, the condition is found to be due to enlarged abdominal glands following an acute throat infection. We find these enlarged glands in the mediastinum by x-ray examination and it is easily possible for the abdominal glands to be likewise enlarged.

Some of the cases of upper respiratory infection may simulate a meningitis. There may be

a marked rigidity of the neck with opisthotonos. This condition may be due to a true meningitis, especially of the influenza type or may simply mean arneningeal irritation or meningismus. In these cases lumbar puncture usually only yields a small amount of clear fluid with very few cells and negative protein tests. We have found this repeatedly in cases which only had red ears but a rigid neck, opisthotonos and slightly bulging fontanelle simulating a meningitis. Probably the most serious complication is broncho-pneumonia, especially in the very young, and warrants an early diagnosis. Physical findings differ at various times. We usually get dullness, bronchial or broncho-vesicular breathing with fine crepitant or subcrepitant rales. The findings may vary from day to day, may be localized in small areas or the entire lung may be crepitant, giving the picture of an acute capillary bronchitis. X-ray examination of these cases at times gives no definite shadow, but we only see a slight haziness with peribronchial infiltration extending to the margin of the lung. Some of these cases have been examined post mortem with a surprising absence of the usual signs of a pneumonia. In some of the cases there is only a slight enlargement of the blood vessels, and when compressing the lungs small amount of fibrin can be squeezed out of the blood vessel. The microscopic section also shows the absence of the usual signs of inflammation giving the picture of an atelectasis caused by the engorged blood vessels. Most of the pneumonias which we see in children are of the bronchial type. It is rare indeed to see a typical lobar pneumonia with its classical symptoms. At times we are certain that a case is of the lobar type, yet on post mortem examination the typical findings of a lobar pneumonia are absent and we find the bronchial type. As a rule a lobar pneumonia has a good prognosis, but the prognosis in a bronchial pneumonia must be guarded. We have seen children enter the hospital apparently suffering from only a slight infection yet the next day become extremely toxic and soon die.

It is rather surprising the few cases of empyema which we have seen this winter. It is indeed rare for one of the pneumonias to develop fluid or pus in the chest cavity.

Some of the rarer complication are pyelitis, nephritis and septicemia. One case of pyemia came under our observation with numerous ab-

cesses over the body. In treating these cases we have as yet not found any specific therapy. Each case needs individual treatment. These cases must be isolated. Plenty of fluids must be given either by mouth, rectum, subcutaneous or intraperitoneal. It is extremely important to keep up the nutrition giving plenty of easily assimilated food high in caloric value. Drugs play a minor role. We usually give large doses of alkalis to prevent a possible acidosis. Caffeine, sodium-benzoate, digitalis, spiritus frumenti and camphor are used for stimulation. I have not found the use of large doses of camphor to be of any advantage to abort these cases. Complications must be treated as they arise. In middle ear disease where there is a redness of the drum with slight bulging I wish to warn against early incision of the drum membrane. We have not experienced frequent mastoid involvement where the drum was not incised.

In short the treatment is isolate, give plenty of fluids and treat symptoms.

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IRRITABLE BOWEL (COLITIS) ASSOCIATED WITH ACUTE RESPIRATORY TRACT INFECTIONS.

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There are many reports in the literature on the occurrence of inflammation in joints, nerves, heart, kidneys, etc., as complications of infections along the respiratory tract. However, that the intestinal tract may likewise be involved is not so commonly known.

Nothnagel¹ in his writings on the diseases of the intestines discussed the colicky abdominal pains or "rheumatic colic" associated with "colds," particularly in children. Poynton² remarked on the occurrence of epigastric distress in children with rheumatism. Stengel³ suggested that in some cases "rheumatic colic" was due to painful conditions in the abdominal wall. Several more recent writers have reported on abdominal wall tenderness (neuritis) being mistaken for visceral tenderness. Brennemann⁴ has reported on umbilical pain in children complicating "colds" which he believed due to inflamed mesenteric and retroperitoneal glands. Gale⁵ has described a case of ulcerations and perforations of the small intestine which ap-

peared secondary to infected teeth and furunculosis of the external auditory canal.

I should like to present for consideration some cases of acute inflammations in the nose, throat or ears which were complicated by pain and tenderness in the abdomen, apparently limited to the large intestine itself.

Irritable bowel, colitis, or neuralgia colica, is probably the most frequent painful abdominal condition found in general practice. It is often the condition too frequently and erroneously designated as indigestion, dyspepsia, gastritis, pyloro-spasm, etc.

The most frequent symptom of irritable bowel is a feeling of uncomfortable fullness or crampy distress in the abdomen, coming on a few minutes after eating. It is worse after a large meal than after a small meal and lasts generally from one-half to two hours, disappearing insidiously. This distress is more or less relieved by belching, vomiting, bowel movements, the passing of flatus, the drinking of warm fluids, by lying down or by the application of heat to the abdominal wall. The distress is generally increased by the taking of more food or the drinking of very cold fluids. This discomfort may be identically reproduced by distending the large intestine with two or three quarts of fluid taken by rectum. Tenderness is usually present over the colon at the site of the discomfort. Under x-ray examination, the bowel may appear normal in size and motility but in severe cases it is contracted and hyperactive, in portions at least. The bowel movements may be either normal in frequency, or constipation or diarrhea may be present.

The specific acute respiratory tract infections under consideration were tonsillitis, pharyngitis, rhinitis, sinusitis, and otitis media. In some of these cases other complications as neuritis and arthritis were likewise present.

In examining these cases an effort was made to rule out any pain or tenderness in the abdominal wall itself, also no case was considered where the abdominal discomfort was preceded by the use of cathartics or unusual or laxative foods. Cases with definite signs of gastro-enteritis were also omitted.

The following cases illustrate the condition under consideration:

Case 1. (John D.) This patient had a "cold" in the nose and tenderness over both frontal and right ethmoidal sinuses. Forty-eight hours after the onset of

this "cold" crampy pains in the epigastrium began. He was seen shortly thereafter. There was present tenderness over the sinuses, right side of scalp and right shoulder (neuritis) and definite tenderness over the transverse colon, and to a less extent, ascending colon. The x-ray examination of the bowel at this time revealed no gross pathology. This patient reported that he had an acute "cold" in nose and throat every few weeks and had similar attacks of abdominal cramps about every second "cold."

Case 2. (Emily K.). This patient was seen with an acute exacerbation of a chronic otitis media with a temperature of 99 degrees and W. B. C. 10,700. Had pain in ear, in left shoulder, hip, knee and, to less extent, in several other joints. She had marked tenderness over descending colon and to a less extent over the ascending colon. Bowels were regular in action and there was no history of use of cathartics or unusual or laxative foods. Patient stated that the abdominal discomfort had been present for about a month and flared up with each attack of earache. Several days later when again seen temperature was normal, ear was draining freely again and soreness of joints and abdomen had practically disappeared.

Case 3. (Oscar P.) After twenty-four hours of "cold" in nose patient began to have crampy pains in abdomen. The bowel tended to be constipated. On the third day of illness, when first seen, patient had definite pains and tenderness over transverse and descending colon. At this time rhinorrhea had ceased and temperature was normal. This patient gave a history of attacks of "colds" in nose about four or five times a year, and had abdominal pains every second or third attacks of these "colds."

Case 4. (Chas. D.) This patient had a temperature of 98.6 but complained of abdominal pains. Had taken no recent cathartics or unusual foods. He was found to have a red throat and definite tenderness over the descending colon. Had never had similar abdominal distress before.

Case 5. (George L.) This patient had slight soreness of throat for about 18 hours, when he developed slight nausea and soreness in left side of abdomen. Patient had noticed similar abdominal distress on former attacks of sore throats. On examination temperature was found normal, throat slightly injected and tenderness was present over the descending colon.

Case 6. (Frank C.) This patient was first seen with a temperature of 99.4 and complained of slight malaise. There was present a moderate inflammation of the tonsils and pharynx and tenderness over the splenic flexure of the colon. The throat and abdomen tenderness continued for several days and then subsided. About two months later patient was again seen with a moderate throat inflammation and a recurrence of the tenderness over the splenic flexure. This again subsided after several days with the inflammation in the throat.

Comment. The abdominal distress in the cases here reported was in most cases secondary in prominence to the respiratory tract inflam-

mation; but in a few it appeared equally prominent as a symptom. In the majority the abdominal discomfort followed in onset that in the nose and throat. In some of the cases other "rheumatic" symptoms, as neuritis and arthritis, appeared with an abdominal distress.

The location of the pain and tenderness was most frequently over the descending colon; to less extent over the transverse portion of the large bowel. In a few cases the bowel was everywhere equally tender. In no case under observation was the umbilical soreness noted, as found by Brennemann in children. The duration of most of these cases was only a few days. However, several continued for five to six weeks.

It is important to draw attention to the fact that I mentioned no case of "colds" complicated by pain most marked over the appendical region. There is no question that such cases do exist. No doubt, many cases of so-called appendicitis in which normal appendices are found are conditions of local irritable bowel. However, as so many cases of true appendicitis are associated with respiratory tract inflammations, and as these cases cannot be accurately differentiated, all patients with pain and tenderness in the right lower quadrant should be given the advantage of surgical treatment.

Whether the bowel soreness and tenderness is due to an inflammation of the mucosa or deeper in the bowel wall itself, has not been determined.

The presence of inflammation elsewhere in the body in joints and nerves suggested that an infection of the bowel wall by way of the blood stream was not impossible. The occurrence of bowel soreness with other conditions known to be due to focal infections suggests that focal infections may likewise play a role in the chronic bowel conditions that are often seen where no history of dysentery or use of cathartics or particularly irritating foods can be obtained.

Conclusions: Soreness along the colon is not infrequently a complication of acute respiratory tract infection. It is suggested that focal infections may be a causative factor in some case of chronic irritable bowel.

BIBLIOGRAPHY.

1. Diseases of Intestines and Peritoneum, Nothnagel's Encyclopedia of Practical Medicine, P. 149. W. B. Saunders & Co., Philadelphia, 1904.
2. Acute Rheumatism, Frederick J. Poynton, Osler's Modern Medicine, Vol. II, P. 701. Lea Bros. & Co., 1907.
3. Diseases of the Intestines, Alfred Stengel, Osler's Modern Medicine, Vol. V, P. 346. Lea Bros. & Co., 1907.
4. The Abdominal Pain of Throat Infections, Joseph Bren-

nemann, *American Journal of Diseases of Children*, November, 1921, XXII, Pp. 493-499.

5. Repeated Perforations of Small Intestines Due to Focal Infections, S. S. Gale, *Journal American Medical Association*, Sept. 23, 1922, LXXIX, 1047-1048.

STREPTOCOCCUS INFECTION OF THE UPPER RESPIRATORY TRACT*

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My attention was directed to the study of this subject by the following cases:

Case 1. In February, 1923, I was called to see a young lady of 13 who had been sick with a sore throat for two or three days. The family physician thought she was developing a peritonsillar abscess. I found the patient very restless and irritable and complaining a good deal of angina. Temperature was 102°. Examination of the throat disclosed a general diffuse redness of the posterior pharyngeal wall, pillars and tonsils, but no circumscribed swelling nor exudative spots were to be seen. The nasal chambers shared the same general erythema.

I told the family it was not a peritonsillar abscess, that it appeared more like a sore throat in one of the infectious diseases and that only with the aid of cultural studies and by watching the progress of the disease one could make a definite diagnosis. I did not hear from the case any further but later learned through friends that it had proved to be a streptococcus sore throat. She later developed edema of the glottis which had to be scarified, then suppurative otitis media and still later nephritis and uremia, and was given up by one of the most prominent internists of this city. Fortunately, she recovered after a prolonged period of illness.

Case 2. During September, 1923, I was called to make an otoscopic examination of a child 3 years of age, who had had a temperature of 102° for three days without any well established cause. Examination of the ears was negative, but the throat showed a general erythema with two or three small exudative specks on the tonsils. As in the previous case, this was my only visit to the patient but through the courtesy of the family physician I learned that the child had steadily grown worse and that a different consultant had

been called every day for the following four or five days. The first diagnosis was follicular tonsillitis but later cultures proved it to be streptococcus infection. The patient developed endocarditis on the fifth day. On the sixth an ulcerative membrane appeared on the tonsils. One of the most prominent pediatricians of this city advised 20,000 units of diphtheria antitoxin, although the cultures were negative for the Klebs-Loeffler bacillus. Injection was followed by collapse and the child died on the following day, the eighth day of her illness.

The above cases prompted me to undertake the study of this subject in the hope that an early diagnosis might ward off the serious and even fatal complications. I found this, however, to be a very difficult task, the reason being that most of the cases do not become hospitalized: consequently no records are available. At the Children's Memorial Hospital of Chicago I could find no data at all on this subject. At the Sarah Morris I found that only three cases of streptococcus sore throat had been recorded for the years of 1922 and 1923.

A review of the literature proved it to be saturated with bacteriologic studies of the streptococcus, but very meager as to its clinical aspects. The English writers have reported epidemics of streptococcus sore throat from time to time. They called it septic sore throat, a very appropriate name indeed. In this country hardly anything was written on the subject prior to 1912 when three distinct epidemics were reported. The first one, described by E. C. Winslow¹, occurred in Boston and vicinity during April and May, 1911. The second one, reported by Drs. Davis and Rosenow² and later by Capps and Miller³, occurred in Chicago during December, 1911, and January, 1912, affecting over 10,000 people. The third one, described by L. P. Hamburger⁴, broke out in Baltimore in April, 1912. Since then a few smaller epidemics have been recorded. One broke out in the surgical ward at U. S. Naval Hospital at Chelsea, Mass., in February, 1919. Another one, described by L. H. Smith⁵, occurred in a nursery home in Portland Oregon, in 1921.

1. Winslow, E. C.: *Jour. Infect. Dis.*, 10, 73, July, 1912.

2. Davis, D. J., and Rosenow, E. C.: *Jour. Amer. Med. Assn.*, March 16, 1923, 773.

3. Capps, Joseph A., and Miller, J. L.: *Jour. Amer. Med. Assn.*, June 15, 1912, 1848.

4. Hamburger, L. P.: *Jour. Amer. Med. Assn.*, April 13, 1912.

*Read before the Northwest Clinical Club, Chicago, Feb. 25, 1924.

The only study of sporadic cases that I could find in the literature was that of Dr. I. H. Erb⁶ of Toronto, Canada, who made a study of 350 cases at the Hospital for Sick Children of Toronto, covering a period of two and one-half years.

As gathered from the literature, one would be inclined to describe the disease as follows:

Definition: Streptococcic or septic sore throat is a virulent infection of the throat, nasopharynx and larynx caused by the streptococcus hemolyticus, beta type, and characterized by severe prostration, high temperature, diffuse redness of the throat, cervical and submaxillary gland enlargement, and is usually followed by serious complications.

Etiology. (a). *Indirect:* 1.—*Age*—No age is exempt. In the Baltimore epidemic children were more affected than adults, while in the Boston epidemic the reverse was true. Dr. Erb found the disease ranging between the ages of six weeks and 13 years. 2. *Sex*.—Females seem to be oftener affected than males. In the Boston epidemic the ratio was almost two to one. 3. *Season*.—More cases occur during the winter and early spring months, namely December to April. 4. *Carrier*.—The infection is most commonly carried through milk, as in the case of the Boston, Chicago and Baltimore epidemics, although other sources will undoubtedly be found.

(b) *Direct*.—The direct cause is the streptococcus hemolyticus, which was found in all cases reported in pure culture. It is best isolated on blood agar or Avery's oleate hemoglobin media. The determination of the type is somewhat difficult, for there are as many classifications as there are varieties of streptococcus. I believe, however, Dr. Gordon's⁷ classification to be the simplest and the best. He bases his classification on three tests, namely, the ability to hemolyze blood and the ability to ferment the sugars, raffinose and mannite respectively. Accordingly he divides all streptococci into the following three main groups:

	Hemolysis	Raffinose	Mannite
1. <i>S. Pyogenes</i> or hemolyticus....	+	—	—
2. <i>S. Salivarius</i> or viridans.....	—	+	—
3. <i>S. Fecalis</i> or enterococcus....	—	—	+

Each of these groups are in turn subdivided into a number of strains, but most of them conform to the same serology.

Pathology. In the uncomplicated cases no gross or microscopic lesions will be found at necropsy in any other organ except the throat, which will show the general pathology of inflammation. This conforms to the findings of Dr. S. Bane-Jones⁸, who reports an epidemic of streptococcus septicemia which broke out among 25 cats in the laboratory of Johns Hopkins Hospital during February, 1921. Twenty-three of these animals died within fifteen days and at necropsy no pathology outside of the throat was found. In the complicated cases we will naturally find the pathology of the associated complications.

Symptoms and Course: The disease is characterized by a sudden onset with a few prodromals, such as chilliness, dizziness, backache and headache. This is shortly followed by a high temperature, 102 to 105°F., and a diffuse erythema of the posterior pharyngeal wall, tonsils and pillars. It appears more like a faucitis or the angina of scarlet fever for the first few days. Indeed, it has been frequently mistaken for scarlet fever. The larynx may become involved or otitis media may set in. Later exudative spots, a complete membrane or ulcerations make their appearance in the throat. Cervical and submaxillary glands are markedly enlarged. The patient is greatly prostrated and on the whole the symptoms are out of all proportion to the amount of local involvement. This feature of the disease has been noted by all observers. At first there may be leukopenia but later there is always a leukocytosis, as high as 40,000 or 50,000. The acute symptoms may subside in a few days, more often a recurrence with complications takes place, or the latter may set in immediately.

Complications. The most common complications are arthritis, suppurative otitis media, peritonsillar abscess, septicemia, peritonitis, nephritis, endocarditis and erysipelas, the most fatal ones being septicemia and peritonitis. In Erb's series out of 38 cases of septicemia only 2 recovered.

Diagnosis. The symptoms as described above, particularly the severity of the disease as compared to the small amount of local involvement, the glandular swelling and the persistent high temperature would arouse one's suspicion

5. Smith, L. H.: Amer. Jour. Dis. Child., 14, 171-177.
6. Erb, I. H.: Canadian Med. Assn. Jour., January, 1922, 13, 32.

7. Gordon, M. H.: Amer. Jour. State Med., 1922, xxx, 432-35.

8. Bane-Jones, S.: Jour. Infect. Dis., 1922, xxxi, 474-9.

that we are dealing with a case of streptococcus infection. A throat culture should be taken early; developed in blood agar media it will reveal streptococcus hemolyticus, probably beta type, in pure culture. This is very significant for, according to Dr. A. L. Bloomfield⁹ of Johns Hopkins, streptococcus hemolyticus is never found in throats of healthy individuals. As to the blood culture, its findings are rather inconstant. In the Chicago epidemic the blood cultures were negative in most cases where glandular enlargement was pronounced. In Dr. Smith's series, referred to above, all cases that died gave positive culture. Of the two that recovered one was positive and the other negative. It would appear that the blood does not become positive until late in the disease when a general septicemia develops.

Prognosis. Prognosis is very grave. Erb finds the mortality to be 58.6 per cent in the complicated cases. Capps and Miller report 19 deaths in a series of 173 cases, making 11 per cent mortality. On the whole, it would seem to depend a good deal on the patient's resistance, most fatalities occurring among the aged and the weak. Dr. Hamburger found the size of the gland to be of prognostic value. He considers a large and persistent bubo of good omen.

Treatment. The treatment so far has been symptomatic. Every effort should be made to increase the patient's bodily resistance. General care, nutritious diet and early stimulation by iron, strychnine and other stimulants is indicated. Later digitalis, proctoclysis, and even blood transfusion may have to be resorted to. In Erb's series, referred to above, in which 17 cases were complicated by erysipelas 9 were exsanguinated and transfused. Of these 4 recovered. Of the remaining 8, which were not transfused, all died.

As regards the use of antistreptococcic serum, no extensive clinical observations have been made so far, the difficulty being that there are so many varieties of streptococci that a suitable serum has not as yet been produced in any laboratory in this country. Meyer and Joseph¹⁰, two German scientists, claim they have been able to produce serums for all varieties which act not only against the organisms but also

against their toxins. Gleason¹¹ recommends hourly injections of antistreptococcus serum combined with proctoclysis in cases of phlegmonous pharyngitis. N. C. Forsyth¹² treated 10 cases of quinsy with injections of antistreptococcus serum. He found that the pain was relieved in 6 to 12 hours and dysphagia a little later but before the abscess had ruptured. No incision was necessary, as the abscess opened spontaneously on the fourth day. The temperature approximated normal one or two days after the serum injection. Polyvalent serums were used in this series of cases.

In the epidemic of the Portland Nursery Home autogenous vaccine was used without any appreciable benefit. It would seem from the above that a suitable antistreptococcic serum should be given a thorough trial, for according to Dr. Gordon over 90 per cent of cases met with in hospital work are due to the streptococcus hemolyticus conforming to the same serology. He contends that in the vast majority of cases a monovalent streptococcic serum will suffice. Let us hope that such a serum will be produced in our laboratories in the near future.

CONCLUSIONS

1. Septic sore throat is of frequent occurrence. According to Erb it was the cause of death in 11 per cent of a series of 1,332 cases.
2. The disease is caused by the streptococcus hemolyticus and is usually carried through infected milk.
3. It is a very grave condition fraught with serious complications and of high mortality.
4. The severity of the disease is out of all proportion to the amount of local involvement, thus belying the seriousness of the condition.
5. Throat cultures should be taken to establish an early diagnosis.
6. Patient should be removed to hospital if at all possible.
7. Antistreptococci serum should be given a thorough trial in conjunction with other therapy.

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COMMON ORTHOPEDIC CONDITIONS*

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In almost every defect or deformity the general practitioner, the family physician, is the first person consulted and upon his advice the future welfare of such a patient depends.

It is my purpose in this paper to discuss briefly some of the more common orthopedic conditions about which the family physician is first called

9. Bloomfield, A. L.: Johns Hopkins Hosp. Bull., 32, 33, 1921.

10. Meyer and Joseph: Medic. Klink, Berlin, 1923, xix, 103.

*Read before North Side Branch, Chicago Medical Society, May 1, 1924.

11. Gleason: Sajou's Analytical Encyclopedia, vii, 427.

12. Forsyth, N. C.: Brit. Med. Jour., March 13, 1920, 361.

upon for advice and to allay the anxiety and fears of the parents.

The first of these is anterior poliomyelitis. At first this may seem to some, unimportant, except during epidemics. But when we stop to think that almost every day sporadic cases are springing up around us, many of which pass unrecognized and many are not even seen by a physician until they drift into a clinic, we are reminded of the constant presence of this disease.

In the acute stage, poliomyelitis calls for purely medical care and I shall leave the treatment to the medical man but, of course, he does not get much chance because all these cases are hospitalized as soon as the diagnosis is made.

However, after the patient is released from the hospital the family doctor is usually called upon for further treatment. The rehabilitation of the patient will depend largely upon his advice. The time is passing when the parents are contented with the statement, "Let him alone, he will out-grow it." The child very rarely regains complete muscular power. By far the greater number are left with more or less paralysis from which deformities develop and continually grow worse if untreated or improperly treated.

The individual who has had poliomyelitis should be kept at rest with the extremities in their proper position and well protected until all pain and tenderness has disappeared. Then very light massage and muscle training should be begun. Of these two muscle training is the more important. By muscle training we mean the reeducation and redevelopment of muscles which have been temporarily or partially paralyzed.

Whenever a muscle shows signs of returning power, the patient is encouraged to voluntarily contract that muscle a few times one day and a few more the next, being always sure to stop the exercises before the point of fatigue is reached. A few minutes overwork of a recently paralyzed may undo many hours of patient training.

In many instances a muscle may have regained some power but is yet unable to do its former work. This is often seen in the anterior tibial for example. With the patient sitting with the foot in the usual position the weak anterior tibial cannot lift the weight of the foot, but if the patient crosses the legs so that the long axis of the foot is parallel to the femur the foot can easily be dorsiflexed. Another way is for some

one to support the foot while the muscle is voluntarily and actively contracted.

In this way almost all muscles that show a return of power can be redeveloped partially or completely. But it is often necessary to employ braces or some other apparatus to hold the extremity in its proper position until the muscles recover their power.

If this power does not return by the time two or two and one-half years have elapsed since the attack, braces must be continued or corrective surgery resorted to.

Each individual case must be studied and the surgical procedure carefully planned before the time of operation. It requires just as much if not more skill to plan an operation on some of these cases as it does to do the actual surgery.

It is beyond the purpose of this paper to discuss the surgery of poliomyelitis in detail but suffice it to say that certain types of operations have become standard procedures such as tenoplasty and stabilizing operations.

Whenever possible a tendon transplantation is the operation of choice. Transplantation of the long head of the biceps and the semitendinosus forward to the patella for paralysis of the quadriceps gives excellent results in the majority of cases. For drop foot transplantation of the toe extensors to the dorsum of the foot, together with an arthrodesis of all the small joints of the foot to prevent lateral deviation gives very satisfactory results.

Of the stabilizing operations, Whitman's operation, astragalectomy, is the most generally useful operation for the flail ankle.

Second only in frequency and importance to poliomyelitis is cerebral spastic paralysis. There are several types of spastic paralysis that cannot be gone into in this paper but I shall limit the discussion to the type caused by injury at birth due to prolonged labor or to the pressure of instruments causing a cortical hemorrhage above or below the dura at the vertex of the skull.

This may be a hemiplegia, diplegia or quadriplegia, mild or severe with mild or severe mental deficiency, depending upon the location and extent of the hemorrhage. The cases of hemiplegia as a rule have the least mental deficiency.

Early diagnosis and operation is essential to recovery but after the clot becomes organized decompression is useless.

The cases we see are those of long standing

and we can only benefit them to some extent by muscle and tendon lengthening. This only aids them in walking but, of course, does not add to their mentality.

Another birth injury of quite common occurrence is obstetrical paralysis. It affects the upper arm and may be the result of difficult or protracted labor. It may result from direct pressure on the brachial plexus but it is most often caused by traction on the head or body or by twists of the neck during labor. The nerve injury may be either a hemorrhage into the nerve sheath which causes pressure from scar formation or a complete tear of the nerve roots.

The type most frequently seen is the unilateral upper arm type of Erb in which the power of abduction and external rotation at the shoulder, of flexion and supination of the forearm is lost and the arm hangs in inward rotation with pronated forearm.

During the first few weeks after birth the shoulder of the affected arm is often swollen and painful on motion. Rest is indicated in such cases. After the swelling and tenderness have disappeared each of the joints affected should be moved to the extent of the normal range of motion several times a day.

Just as soon as the patient can wear it a splint should be applied. This is made of wire covered with canvas. The wire is mounted to fit the lateral half of the chest on the affected side then extends outward to hold the upper arm at right angles to the body and the forearm flexed at a right angle and parallel to the body. Thus the affected arm is held in abduction, outward rotation and the forearm supinated. The whole process is simply one of untwisting the arm and holding it until the affected muscles are thoroughly stretched. In some of the neglected cases, however, it may be necessary to divide some of the muscles before the arm can be brought into the proper position.

Congenital equinovarus is quite a frequent deformity and it yields readily to the proper treatment when begun at the proper time. We frequently see cases where the parents have been told to wait until the child begins to walk or to wait until it is a year or two old before having anything done.

This is improper advice. The time to start correcting a club foot is the first time you see

the foot or at any rate usually by the time the child is two weeks old. Gentle stretching and untwisting done by the parents or nurse is of great benefit to the foot. Plaster-of-Paris casts applied while the foot is held in a corrected position and changed about every two weeks until the varus is corrected is next in order. It may be that by the time the lateral deformity is corrected the Achilles tendon will also have become stretched. However, if the Achilles tendon has not stretched or shows no tendency to stretch then a tenotomy must be done to allow the foot to be dorsiflexed beyond a right angle. When this is done it is usually noticed that the toes are tightly flexed. If so the flexor tendons must be tenotomized at the base of the toes. This is just as important as any other step in the operation. If these flexors are not cut they make walking more difficult and also tend to cause relapse by pulling the foot into the inverted position. The posterior tibial which is a direct inverter of the foot frequently needs to be divided also.

After thorough stretching and tenotomies the foot is over-corrected and put in plaster-of-Paris, not put in plaster and then over-corrected. The casts are changed as the occasion demands until the foot shows no tendency to relapse.

In small infants it is wise to flex the leg at right angles to the thigh and include the thigh in the plaster. This gives a good grip on the foot and prevents the cast from being kicked off or the foot from pulling up in the cast.

It is always wise to apply a Taylor club foot brace to be worn many months after the cast is removed.

Old neglected club feet of older children and adults usually require extensive bone operations such as cuneiform osteotomy in addition to tenotomies. Astraglectomy should never be performed in a congenital club foot of the equinovarus type if it can possibly be avoided because removal of the astragalus removes the chief bony support of the inner side of the foot and tends to favor, rather than prevent, a varus deformity.

The cripple we have had and always will have among us but we are safe in saying that some diseases that result in deformities are slowly but surely decreasing. In the various orthopedic clinics there has been a noticeable decrease in the number of patients with bone and joint tuberculosis.

Tuberculosis of the bone and joints is the most difficult and the most time consuming of all the deforming diseases we are called upon to treat. The early and proper diagnosis of this disease is of the utmost importance to the patient as is also the proper treatment.

In this connection I wish to call attention to three cases that have come under our observation during the past few years.

One of these was a girl about six years of age who was brought to the clinic with a hip flexed at forty-five degrees. She had been under treatment for several months and was wearing a very inefficient brace. She had spent six weeks in a hospital in bed with traction, then had worn a cast for several weeks, then last of all the brace. But during all this time all treatment had been confined to the well leg. The mistake was made because in the early stage there was apparent lengthening on the diseased side and the leg that looked short was the one treated or pulled.

Some time later another girl about nine or ten years old came to the clinic. She gave a history of repeated attacks of appendicitis and had finally been operated upon. Through this incision a large amount of tuberculous pus was draining. The diagnosis of appendicitis had been made from the pain which was referred to the abdomen from a low Potts disease and from the palpable psoas abscess. She had a kyphos that anyone could feel and see but it had not been noticed until she came to our clinic.

Quite recently another ten-year-old girl was sent to the hospital by the family doctor. She came late in the evening and the parents stated she had appendicitis. She gave a history of recurrent attacks of pain over the appendix region and seemed tender over the appendix. The intern made a probable diagnosis of appendicitis and pyelitis and called the attending surgeon. He examined her and said she could wait until morning. In the morning the intern on the ward made a careful examination and discovered a well marked kyphosis. The x-ray showed the lesion with an abscess around it.

These three cases are cited only as a reminder that things are not always what they seem and we must always be on our guard.

The treatment of bone and joint tuberculosis in children should always be conservative. In former years when treatment was neglected or was less efficient than at the present time nature

cured hip disease with a shortened and distorted leg.

The object of treatment is to relieve the pain; to relieve the muscle spasm that induces distortion of the leg; to correct and to prevent deformity.

Practically every case of hip tuberculosis we see has some flexion deformity, muscle spasm and night cries.

These children are put on a Bradford frame with traction. A Buck's extension is applied with the adhesive strips going high up on the thigh. The pull must be made along the angle of deformity and the weight must be sufficient to relieve the muscle spasm and prevent the night cries. As the muscle spasm is relieved the angle at which traction is being made can gradually be lowered until the leg is down parallel to the well one. When this is accomplished, if there are no complications, a long plaster-of-paris spica is applied and the child allowed up on crutches, or a traction hip splint can be worn.

The common complication of hip disease is abscess formation. When an abscess forms the temptation to incise and drain it is great. But these abscesses should not be incised because of the danger of secondary infection which always follows.

Many of the tuberculous abscesses absorb if the patient is kept quiet long enough. Others have to be aspirated from time to time and finally absorb. Still others break through and become secondarily infected in spite of all we can do.

The principles of treatment of tuberculosis of the spine are the same as of the hip joint.

While we are conservative in our treatment of joint tuberculosis in children we are more radical with that of adults. When an adult develops a joint tuberculosis the sooner that joint is surgically ankylosed and the sooner the joint is well and the patient can resume his usual occupation.

There has also been a marked decrease in rha-chitic deformities, deformities due to improper food, lack of sunlight and a place to play.

But we now and then have to prescribe braces for some cases of bow-legs or knock-knees and we see others who are past being benefited by braces and need operative correction.

Although we cannot make the cripples over into physically perfect individuals the majority of them can be made self-supporting at least and

thus become an asset instead of a liability to their community.

PHENOLSULPHONEPHTHALEIN TEST

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The use of the Rowntree and Geraghty modified Hellige Colorimeter for estimating the quantity of phenolsulphonephthalein excreted, when applying the Rowntree and Geraghty's renal functional test, presents a certain difficulty, in comparing the specimen with a standard solution contained in the wedge-shaped cell, because the color of the urine differs considerably from the color of the water which is used for preparing the standard solution.

The Dunning Colorimeter, which consists of thirteen sealed ampules containing standard color solutions, allows a more exact comparison of the specimen and standard solution, because the alkaline water used for making the solution is tinted with yellow to compensate for the color of the urine specimen. But the specimens of urine of different patients vary considerably in color; this makes an exact comparison of the urinary specimen with the standard solution difficult at times or impossible. To meet this difficulty, the following modification of the method is suggested based upon color comparator block, such as has been described by Walpole² and others.

The comparison box contains six holes, arranged in two rows. The sealed ampules contain standard color solutions made by dissolving phenolsulphonephthalein in alkaline water which has not been tinted with yellow. The ampules are placed in the comparison box in the following way:

The ampule containing the prepared specimen—in the front center hole of the comparison box; the sealed standard ampules on either side of it; an ampule containing pure water—in the back center hole; two ampules containing unprepared urine specimen of the same patient—on either side of it.

By arranging the ampules in the above mentioned manner, we have in each sagittal row urine, water and phenolsulphonephthalein, thus eliminating the difference in the color be-

tween water and urine and making the comparison possible with highly colored or cloudy urines.

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1. Walpole, G. S., *Bio-Chem. J. Liverp.* 1911, V, 207.
2. Sholl and King, *John Hopkins Hosp. Bull.* 1920, Vol XXXI, No. 351, p. 158.

THE PHOSPHATIC INDEX

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A human being consists of a body and a soul; the former is made up of fluid, bone and flesh divided into cells, every one of which can be seen and examined either macro or microscopically.

The soul is a biologic force which houses the mind, reason, temperament, etc.; like air, electricity and gas, it is always present, but cannot be seen. The location of the soul is indefinite, but it may be inferred it occupies a region adjacent to the seat of all life—the brain; in fact, as air surrounds the earth, the soul surrounds the brain.

Scientists tell us that the human body completely changes every seven years, that at the end of that time, not one single cell of the original remains. If this is so, there must be a constant destruction, and if life is to be maintained, there must be an equal, or practically so, reconstruction.

We know that the human body is composed entirely of chemical compounds; that these are received through the stomach in the form of food and fluids; that each division has a specific nutrition that is used as a force, and when it has performed its function as a nutriment, there is a residue which remains and is thrown off as an end product.

Thus we have iron supplied to the blood cells; calcium to the bones; protein to the muscles and phosphorus, lecithin and nuclein to all cells, especially so the nerve cells, where they act as a nutrition of food.

The residue of end systemic destruction makes its exit from the body through four channels: the skin, lungs, bowels and kidneys, all of which can be examined chemically or microscopically, detecting at once any interference with normal elimination.

Focusing attention on an emunctory—the kidney, and choosing one of the most important excretions therefrom, the phosphates, and which are the end products of phosphorus, lecithin and

nuclein, and the following information is gleaned:

There are two varieties of phosphates, the earthy and the alkaline. The earthy or magnesium and calcium, phosphate may appear in freshly passed urine, or upon boiling: they are not seen as crystals, but resemble microscopical sawdust, and readily dissolve on the addition of an acid. These have practically no clinical significance and may be dropped from further consideration. The alkaline phosphates, sodium and potassium phosphate, appear as crystals, but only after precipitation with an alkaline solution. These represent the end products, in other words, the residue of nerve cell nutrition; the debris, so to speak.

It has been stated, and there is no question that it may be true: the alkaline phosphates, to an extent, may be eliminated by the bowels, but the greatest amount is passed by way of the kidneys, in the urine.

The elimination of the alkaline phosphates varies during the day. In the morning, up to about ten o'clock, they are at their lowest ebb; they rise during the day, until evening when they are the highest. Certain foods which are rich in phosphorus will also, to some extent, increase them.

Books briefly state that the rise or fall in the alkaline phosphates are influenced by the nervous system. Could more positive proof be forthcoming? As already stated, they are lowest in the morning, because the mind and brain have been at rest, but they commence to rise during the day, and are at the apex in the evening.

The brain, through ramification, supplies the whole body with motion, sensation and energy. But as a source of supply, it is called upon to go one step further, it also furnishes energy for that biologic force, the mind.

Like the heart or lungs, the mind is in constant action day and night, and the call for energy for this purpose, and especially in a good majority of the people of today, is far in excess to that necessary for the normal calls for the already mentioned motion and sensation. As we find it is outside environments: commercial plants, the greater the call for power, the greater the need for an increase in fuel, and in turn, the greater the end products or waste.

It has been stated that nutrition is supplied the nerve cells from the food we eat. It may be

further stated that there is not only a sufficient amount supplied for the normal daily calls for action, but that nature has deemed it wise to create an excess for times of emergency; this may be called a reserve. This is well exemplified by the statement of Prof. Shaw, in his work on Nervous Diseases, when speaking of neurasthenia. He says: "This unstable state of the nervous system depends evidently upon some defect in the power of the neurones to assimilate and store up nutrition and force in sufficient quantities and with sufficient rapidity to carry on fully and easily the work of life."

Although the writer will admit it is a very bold assertion, it will be found true, nevertheless, if the mind could be eliminated as a factor in the use of nerve force, fully ninety per cent. of the conditions known as neurosis would become a thing of the past.

The truth of such a statement should be very clear. Every thought arises in the mind; thoughts demand energy, the more intensifying the thoughts, the greater the calls for energy.

The method of ascertaining the phosphatic index is very simple, in fact, far too much so to make the psychological impression on the mind of the physician of today, that it should.

Use the second or third sample of urine passed in the morning, preferably between ten and eleven o'clock. Fill the Phosphatometer (the Phosphatometer can be used to take the specific gravity) with urine to U, add solutions* to S, shake thoroughly and set aside for ten minutes. If nutrition in the nerve cells is normal, or approximately so, and is being used in the same manner, the mixture will turn milky at once, and in amount as to the reserve present.

When the precipitate falls below NP, or does not fall at all, and is light and fluffy, it indicates that the reserve is depleted to an extent as registered on the Phosphatometer. In this condition the crystals will practically always show a want of nutrition.

This condition is analogous to a deficiency of hemoglobin with a diminished red cell count. The symptoms may vary just as widely as those in anemia; that is, from a mild primary condition to the pernicious variety.

*Mag. sulphate, ammonium chloride, water of ammonia 10% (common kitchen variety) of each one ounce. Water 8 ounces, mix and let stand a couple of days or so before using. This solution can be prepared by anyone at a small expense; four ounces with printed formula, and cut of crystals with full directions accompany each Phosphatometer as sent out by the Richardson Drug Co., Buffalo, N. Y.

Like the suckling baby that cries when hungry, hunger of the nerve cells is manifest by pain, especially of a neuralgic or neuritic nature. But nerve cell hunger goes one step further.

Resistance in every tissue of the human being is furnished from the brain, through the nervous system; a low state of nutrition means a low resisting power, a most grievous condition to be encountered in the treatment and care of inflammatory or any other condition where repair is necessary.

As an illustration of the above, briefly the following cases may be cited:

Mrs. D., my mother, aged 88 years, pneumonia, under treatment by Dr. Colton. It was very evident, about the third or fourth day, that she could not continue much longer, as the case was going. I personally made an index, which was very low, and suggested that she be put upon a mixture of phosphorus, nuxvomica and cannabis indica to increase resisting power, in connection with other measures. This was done at once, and after three or four doses of medicine she volunteered the information, "I feel better." This was evident by a fall in temperature and a clearing up of the lung condition; she entirely recovered and lived for several years.

Dr. E. A. Smith removed a very large fatty tumor from the shoulder of a patient aged 35 years. Healing was by granulation. It progressed favorably for ten days to two weeks, when no matter what sort of dressing was used, there seemed to be no advancement. At the suggestion of the house surgeon, an index was taken and found very low. The same mixture in half teaspoonful doses was ordered half an hour after meals in milk. In three or four days it was apparent that granulation had resumed; in two weeks the wound was closed and at the end of a month the patient had gained sixteen pounds in weight.

Dr. W. (a former president of the N. Y. Medical Society), had a very severe left brachial neuritis of over six weeks' standing; no form of treatment had given relief. An index was taken registered N. P. and in the absence of any excess of uric acid, an opinion was given that the nervous system was not at fault, and to consult a surgeon as the trouble was probably due to pressure on the nerve.

Ignoring my advice, and at the suggestion of another physician, who had relieved several cases of neuritis with phosphorus (there certainly was a minus index), he took the heretofore mentioned combination of phosphorus, nux, and can. ind. No more result than from the former treatment. He consulted a surgeon who found pressure and relieving it, he was free from pain in a few hours.

(Think of the suffering that could have been avoided had an index been taken at the outset of the trouble.)

Headache is the most common symptom we find in anemia; pain is always present in a deficiency of nerve cell nutrition or neuroinidia.

Pain is a reflex condition. The center of pain is located in the brain, the sensation being referred to any certain spot by the cause being located at that point. It may appear at a point where there is no apparent injury or irritation, but questioning will always bring forth the information that at some time there has been an injury, or solution of continuity, an old fracture, dislocation, sprain or other injury.

Painful conditions may be divided into two varieties, the ones where a cause is evident by sight, feeling, x-ray or history; these may be considered as organic, they are located at a specific spot and may be accompanied by fever, etc. On the other hand, pain may be indefinitely located, and change in character is very common. There is no definite cause observable, and it is this very thing that has led to local foci of infection, a condition that we now know has been sadly overworked. This condition of pain can be termed as functional, and although there is a cause, it is not of a true, pathological nature; it is the same as a murmur, due to anemia.

It must be admitted nerves cannot speak, but they have a word for irritation or hunger; it is pain.

The following briefly reported cases must show the value of ascertaining the state of nerve cell nutrition in all conditions of pain of an indefinite nature, or where well known and appropriate remedies do not quickly relieve the condition:

Miss K., in bed for nine weeks with rheumatism (the diagnosis was correct; the cardinal symptoms of that disease disappearing under treatment for that condition).

But pain of an indefinite character continued to an extent that it was impossible for her to be about for any length of time. A sample of urine being sent to me, an index, seventy-five per cent. minus was found, crystals B, showing nerve cell impoverishment, otherwise it was normal.

A prescription: FL. Ex. Valerian, one ounce, Comp. Phos. tonic, two ounces, was prescribed, one-half teaspoonful in milk half an hour after meals. Pain decidedly lessened after the fourth or fifth dose. Strength returned, she was able to get about on the fourth or fifth day with no pain and strength returning fast.

Mrs. C. patient of Dr. Bennett's. Brachial neuritis of over two years' standing, no relief from treatment. An index in this case showed 80 per cent. minus, and Comp. Phos. Mixture ordered at once. Three doses

entirely stopped the pain; she gained in weight and strength also; was entirely well two years afterwards.

Hundreds of cases of neuritis, neuralgia and like conditions could be reported; suffice it to say, of the above conditions about eighty to ninety per cent. will be found due to a want of nutrition, as will be shown by a minus index.

When the precipitate remains in a practically solid condition above NP, it indicates irritability or hypersensibility of the neurones; the normal daily amount of energy received is not only being used, but the reserve is being drawn upon. Such a condition is generally characterized by pain, great irritability; in the hysterically inclined, symptoms and actions are markedly intensified.

If such a condition is allowed to go unchecked, sooner or later the reserve becomes depleted, and a condition of neurasthenia or other more serious conditions present themselves.

Mrs. H., at Toronto, Ont., taken with sudden and severe pain involving the whole body; fingers, also elbow joints swollen markedly. Remained in bed three weeks, being treated for rheumatism, but no apparent relief. Brought to Buffalo, the writer was asked to see her. The case looked a perfect picture of rheumatism, and diet and appropriate remedies for that condition were ordered. Day followed day without any relief; morphin was necessary for the pain. At the end of a week an index was taken being found 150 per cent. plus. Sodium bromide grs. 15, in elixir valerianate of ammonia, drachm one, was ordered every three or four hours. It was necessary to increase medicine to once an hour; at the end of a couple of days she was practically free from pain. At the end of a week she was doing nicely, but very weak. Another index at this time showed 75 per cent. minus and a Phosphorus Mixture was ordered; she gained rapidly and was soon in perfect health.

My own personal case. Pain in neck, shoulder and arm. (1918) Diagnosed as influenza by attending physician and sodium salicylate in Tr. cimicifuga ordered. Water would have done me as much good; for four or five days the pain was intense. On the sixth day I had an index taken and found 100 per cent. plus. Obtained the same formula: bromide and valerian. Great relief two hours after the second dose, entirely free from pain in eight or ten hours. Next time I will take my index and avoid suffering.

Summing up the whole affair it might be suggested that fully eighty per cent. of human ailments are functional; they are the ones that bother the physician. Local foci of infection dismally failed as furnishing the cause; when in doubt look to the seat of functional troubles, the brain cells.

437 Franklin Street.

Society Proceedings

ADAMS COUNTY

Meeting of September 8, 1924

This was a dinner meeting of the Adams County Medical Society, held at the Quincy Chamber of Commerce. Dr. Warren Pearce, the President, was in the chair and there was a total attendance of 49.

After the dinner was completed Dr. Carl E. Black of Jacksonville was called upon to address the Society on the subject, "What the Jacksonville Clinical Association Has Accomplished." This was an excellent talk outlining the benefits of a clinical association. Following this Dr. Herman H. Cole of Springfield talked upon, "What the Sangamon County Clinical Association Has Accomplished." This, too, was an excellent plea for the establishing of clinical associations. The discussion was opened by Drs. J. E. Miller and Walter Stevenson and continued by Dr. Deal of Springfield, Dr. Norris of Jacksonville, and Drs. Swanberg, Center, and Williams, being closed by Drs. Black and Cole. The President thanked the members from Springfield and Jacksonville for coming to Quincy to tell us what their counties have accomplished by means of the clinical associations. Following this the business session was conducted.

The minutes for the July and August meetings were read and approved. Dr. A. H. Bitter, Chairman of the Entertainment Committee, reported that there was no deficit from the picnic held last month. Dr. Koch, Chairman of the Committee on Parking Automobiles in the Down-Town District, reported that he had attended a recent council meeting and stated that the council said they would consider his plea for special privileges for doctors in motoring but would not approve of any special parking privileges. Following this there was a long discussion about the advisability of trying to secure special privileges for parking of physicians' cars in the down-town district of Quincy. Dr. Nickerson made a motion that the committee's report be approved and continued. Seconded and carried. Dr. Swanberg tendered his resignation as chairman of the Arrangement Committee for the 1925 State Medical Society Convention in Quincy, stating for his reasons poor health and a desire to see more of our members take an active interest in the doings of the Society and be willing to do work. He felt that as Secretary of the Society and Editor of the *Bulletin* he was doing his share and did not want the membership to get the idea that he was endeavoring to seek all the offices of the Society and do all the work. It was moved by Dr. Nickerson that Dr. Swanberg's resignation be accepted with regret. Seconded and carried. Dr. Ericson made a motion that Dr. Pearce be made Chairman of the Local Arrangement Committee. Seconded and carried. Dr. Beirne announced that the President of the State Society and the Director of the State Publicity Campaign would be available to come to Quincy in November if the Society wished them. Bills to the amount of \$11.06 for flowers were presented for approval. Dr. Nickerson made a motion that the bills be ordered paid and a voucher drawn

for them. Seconded and carried. Dr. Knox read a resolution the summary of which was to the effect that the Adams County Medical Society go on record as being opposed to having any physician as director of the Adams County Tuberculosis Sanitarium other than one who specializes in tuberculosis, who devotes his entire time to the Sanitarium and who does not engage in general practice but limits his practice to the treatment of this disease, the resolution being signed by Drs. Koch, Knox and A. H. Bitter. Dr. Knox made a motion that the resolution be adopted. Seconded by Dr. Koch. Dr. Irwin explained what he had endeavored to accomplish at the Adams County Tuberculosis Sanitarium since he had been made director nearly 10 months ago, and stated he was willing to resign as director any time the Board of Directors of the Sanitarium wished him to. Dr. Center spoke in protest of the resolution and was followed by Dr. Beirne who moved that the resolution be laid on the table, this motion being seconded by Dr. Montgomery. After further discussions explaining the resolution by Drs. Knox and Koch the motion to table the resolution was carried. Further discussions on the work of the Sanitarium followed. Dr. Stevenson made a motion that the Adams County Medical Society sponsor a clinical association and that a committee of five be appointed to investigate the desirability of doing this and to report back at the next meeting. Seconded and carried. The President appointed Drs. Cohen, Steiner, Miller, McReynolds and Jurgens to serve on the committee.

A motion for adjournment was then in order and the meeting adjourned about 11:25 p. m.

HAROLD SWANBERG, M. D., Secretary.

COOK COUNTY

THE CHICAGO LARYNGOLOGICAL AND OTOLOGICAL SOCIETY

The regular monthly meeting of the Chicago Laryngological and Otolological Society was held at the Hotel Sherman, Monday, April 2, 1923, at 8:30 P. M.

The President, Dr. Chas. H. Long, in the Chair.
PRESENTATION OF CASES:

DR. C. H. LONG presented a patient who had been operated on for nasal obstruction, a condition which apparently had affected his mental state. The patient insisted that there was a cartilage which obstructed his left naris and that he was unable to get free passage of air through his nose.

DR. JOHN A. CAVANAUGH reported a case of foreign body in the esophagus in which a diagnosis of carcinoma of the esophagus had been made, and presented skiagraphs showing the hour-glass appearance and obstruction of the esophagus. The history was that the patient awoke one morning and had difficulty in swallowing with regurgitation of food. He had no knowledge of having swallowed a foreign body but had been on a "spree" for a few days and missed a small artificial denture from the front of the mouth, which he thought had been lost. Röntgen examination revealed the cause of the obstruction and the plate

was removed without much difficulty. The patient made an uneventful recovery.

DISCUSSION

DR. GEORGE W. BOOT thought it was unusual for a patient to swallow a plate without knowing it and believed it was criminal for dentists to make such small artificial removable dentures. They should be large enough so that they could not slip into the esophagus.

DR. EDWIN MCGINNIS recalled a case he had seen where the patient had swallowed a plate containing three teeth. The patient developed hoarseness and later difficulty in breathing but had no knowledge of having swallowed a foreign body. Upon examination the physician saw the upper edge of the denture and removed it with forceps.

SCIENTIFIC PROGRAM:

DR. GEORGE W. BOOT read a paper entitled: "Tumor of the Carotid Gland with Stokes-Adams Syndrome."

(Abstract)

The patient was a mulatto whose symptoms had been present for six months. They began with a choking spell and loss of consciousness for about a minute. These strangling or choking spells recurred from one to three times daily until he entered the hospital. At this time examination of the larynx was difficult on account of the convulsive action of the muscles of the throat and neck. It was found that he had paralysis of the left abductors and that the left vocal cord was fixed in the median position. He had a small lump in the neck which was thought to be an enlarged lymphatic gland. Pressure on this lump was painful and immediately brought on one of the choking spells. In these spells his pulse became slow. If the pressure were continued long enough he became pulseless at the wrist and the heart sounds heard with the stethoscope disappeared and if the pressure were still longer continued he went into a general convulsion. The condition was a typical Stokes-Adams syndrome of vagus inhibition due to pressure of the tumor on the pneumogastric.

On attempting to remove the tumor it was found to be intimately connected with the common, internal and external carotids and internal jugular vein, all of which had to be ligated before the tumor could be removed. The patient lived about a week after the operation and succumbed to pulmonary tuberculosis which was much aggravated by the operation.

He had had no fever or night sweats but had coughed a good deal before the operation. Examination of the chest was much obscured by the noises incident to the vocal cord paralysis and the constant convulsive action whenever any examination was attempted.

Benign tumors of the carotid gland are simple hyperplasias, adenomata or angiomas. Malignant tumors have been diagnosed with difficulty, sometimes being called sarcoma, carcinoma, endothelioma, perithelioma and so on. About seventy cases of carotid tumor have been reported, the first in 1891. They affect the sexes about equally. Only one case had bilateral tumors. They are more common after the age of 40. Often they are present for years, in one case for forty years, before they begin to enlarge rapidly and assume malignancy.

Operation should be done before they involve the

carotids. The mortality of operation to date is about 30 to 35 per cent. The cases that recover are apt to have recurrences or to have permanent paralysis of the recurrent, the facial, the hypoglossal or to have hemiplegia or aphasia.

The specimen removed should be fixed with Mueller's or Zenker's fluids for the cells belong to the chromaffin series and do not stain at all well if fixed in formalin. However, specimens preserved in formalin may have their staining properties restored if they are run through chronic solutions before straining.

DISCUSSION

DR. OTTO STEIN thought these tumors were probably not as common as they might seem and that they were usually diagnosed late, frequently on the operating table.

He recalled a case which he had considered a tumor of the neck of indefinite origin. Upon attempting to operate they found a dense, vascular and adherent mass and the disturbance caused by manipulation indicated that the tumor had something to do with the pneumogastric. The effects were so pronounced that operation had to be discontinued.

Dr. Stein said he would hesitate to operate in such a case for the mortality is enormous and the possibility of a patient living for a long time with such a gland is more favorable than that of recovery following operation. Most cases are of malignant type when seen. The location of the mass, at the bifurcation of the external and internal carotid artery so closely associated with the nerves, the hypoglossal and superior cervical plexus lying on the anterior surface, makes dissection very difficult without producing some disturbance of the nerves. In the early stages this difficulty would not be so great but the cases are seldom seen early and the intimate association with the carotid made them practically hopeless operations. The ability to diagnose this condition and differentiate it from many other things was of importance for many things lead to suspicion of the carotid gland. He was of the opinion that such growths should be left alone.

DR. JOSEPH C. BECK asked Dr. Boot to explain the connection between the epilepsy and the growth. He thought perhaps the relation of the sympathetic ganglion to the tumor was of some importance in this connection, along the line of the work of Jenesco regarding the ligation of the carotid to cure epilepsy. He believed he might be as lethargic as Dr. Stein in leaving such a growth alone.

He also asked Dr. Boot if he did not find in the literature that the carotid gland was related to the polyglandular system. In his opinion, radiotherapy might have been given a trial in this case.

DR. BOOR (closing) said that another physician saw the patient and used radiotherapy before he took charge of the case. He thought Dr. Stein's advice to leave such cases alone was very good. The time to remove these growths was before the tumor got large enough to involve the carotid, but that was before he sought the advice of the physician—as a rule.

He was glad to hear Dr. Beck mention the work of Jenesco but thought it had been entirely to the discredit of the profession and believed that Jenesco himself had changed his opinion.

Dr. Boot believed the cause of the epilepsy in his case was anemia of the brain from the compression of the growth, that the sympathetic ganglion had nothing to do with it but that it was a Stokes-Adams syndrome. They could neither feel the pulse nor hear the heart sounds with the stethoscope before the convulsion.

DR. JAMES E. LEBENSOHN presented his inaugural thesis entitled: "Congenital Atresia of the Posterior Nares."

(Abstract)

Congenital occlusion of the choanae is rare. The total number of reported cases is now 170. However, correct diagnosis may often be a matter of funda-

mental importance. Many of these cases are unrecognized at birth, and when speedily dying as a result of the obstruction to respiration are placed under the general class of asphyxia neonatorum. Among children, because of the nasal obstruction, many are diagnosed "adenoids," and often subjected to repeated adenoidectomy.

Pathology: Congenital choanal atresia has been reported three times as often on both sides as on one side alone, and the obstruction when present is usually complete. In 90 per cent. of the cases the occlusion has been of the osseous type. The obstructing plate of bone is vertically placed, has a concave pharyngeal aspect, and is situated within the nasal chamber, the posterior edge of the vomer extending about a millimeter beyond it.

The central portion of the occlusion is thinner than the periphery and may sometimes be composed of membrane only. Post-nasal examination then shows a more or less marked dimpling at this point—occasionally a perforation. This opening when present is functionally of little value, giving the patient neither the ability to blow the nose nor respire.

Choanal Occlusion in the Newborn: Bilateral occlusion of the choanae in the newborn constitutes a definite emergency, and the life of the infant may depend upon making the diagnosis. The distinctive symptom is:

"Cyclic dyspnea." The child struggles for air, the face becomes slightly cyanosed, the child cries, and the mouth breathing instituted relieves the distress. The child rests—and the cycle of respiratory difficulty recurs. So great is the dyspnea as to prevent the infant from taking either the breast or the bottle. Since mouth breathing is an acquired habit, the newborn child thus affected suffocates unless special measures are taken. Another characteristic pathognomonic of this affection is the thick, gelatinous, clear mucus that fills the nasal cavities. To verify the diagnosis: (1) Syringe the cavities. The fluid does not enter the pharynx but returns in excess at the anterior nares. (2) Pass a probe. The resistance of the obstructing osseous plate is felt.

In the management of this emergency, the immediate object is to secure and maintain mouth breathing. By pressing the lower lip down the dyspnea is relieved. The lips are thus kept apart day and night until the end of the second week, by which time the child has probably learned to breathe through its mouth. During this period nutrition is maintained by dropper feeding. The child shortly learns to breathe through its mouth and suck at the bottle alternately.

After the ninth month the nasopharynx is sufficiently well developed to permit of the finger manipulation necessary to operation. To prevent possible alterations in the facial skeleton, the operation should be undertaken at this period or soon thereafter.

Choanal Occlusion in Later Years: On the side of the choanal closure the following constant phenomena are observed:

1. Nasal obstruction of the completest type. Neither

respiration nor expulsion of mucus is possible. In crying the tears flow out of the anterior nares.

2. Anosmia recurs because of absence of an air current. After removal of the obstruction the sense of smell is sometimes partially regained.

3. Accumulation of a distinctive type of mucus—albuminous, extraordinarily tenacious, and of a peculiar bluish color. The patient, by pressure against the alae, may be able to remove the viscid secretion.

4. Atrophy of the turbinals makes the nasal cavity appear more spacious than usual. The mucosa is anemic, sodden and inelastic and the inferior turbinate may show mulberry degeneration. The atrophy is due to lack of use and pressure of the masses of mucus.

5. The septum is deviated toward the obstructed side in unilateral cases. The causes that combine to produce this effect are: (a) The occlusion holds the septum to its side. (b) The obstructed side is not subject to the dilating influence of the air current. (c) The V-shaped groove in the upper border of the vomer may be maldeveloped on this side, so that the cartilage has slipped out, and projects under the mucous membrane.

6. There is constantly a history of difficulty in maintaining nutrition in infancy.

Operation: The usual technic has been to operate under general anesthesia. Experience with the local anesthetics in this operation has not been satisfactory. With the finger in the pharynx as a guide, the occluding bone is removed by trephine, chisel, punch and rasp. Especial care is taken to remove entirely the projecting border of the vomer, and to smooth down nicely the edges of the newly made aperture, for otherwise recurrence of the closure by granulations will take place. The operation may be finished by passing around the septum a strip of bismuth impregnated gauze and tying this around the columella. This is changed daily by attaching a fresh strip of prepared gauze to one end of the old strip and then pulling on the free end. The change is painless and is kept up for ten days.

The growth of occluding granulations may also be prevented by combining the removal of the obstruction with a thorough-going submucous resection of the septum.

Case Report: The patient was a white male, 23 years old. The only other abnormality present was a bifid uvula. The palate was normally arched with the raphe in the midline. The choanal closure was on the left side and this side of the face was somewhat less full than the right. Hearing was entirely unaffected, a constant finding in these unilateral occlusions. Skiagrams demonstrated clearly on the affected side the undeveloped nostril, the atrophied turbinals, the bony periphery of the occlusion (which was osteomembranous), and the marked posterior deviation of the spetum. The parents gave the following statement: "When he was about two weeks old, something green and about an inch long came out of his right nostril on sneezing, but the left nostril never became free."

The operation was performed under light ether an-

esthesia. Recovery was rapid, and the sense of smell was partially regained. The after-treatment had consisted only of cleansing sprays. Six months later occluding granulations had formed. Should the chance for reoperation present itself, the essayist said that after excising granulations he would remove the posterior part of the spetum by submucous resection. This, he believes, will prevent recurrence.

DISCUSSION

DR. ROBERT SONNENSCHN said he had nothing to offer in the way of criticism or in addition to the subject matter, but congratulated Dr. Lebensohn on his clear and logical presentation of the subject and the Society on the acquisition of so valuable a member.

The point regarding the lack of dependence of ear conditions upon obstruction of the nares was also emphasized at the last meeting of the Illinois State Medical Society by Dr. Shambaugh. Dr. Sonnenschein thought it important to remember that while obstructions of the nose may influence middle ear conditions when they favor extension of the infection by way of the Eustachian tube, it is not necessary to remove every little spur when operating, on the assumption that it will produce difficulty with the ear. He had recently seen a case of marked deviation of the septum to one side but this patient had never complained of obstruction, as frequently happens. In this instance the patient asked whether the septum should be operated upon, and said she had been told by another man that she must have an operation because she might get a sinus or ear infection sometime in the future. As there was no obstruction Dr. Sonnenschein advised against operation.

DR. JOSEPH BECK said he did not know this condition was so rare and could add six cases that he had operated in children. He offered a suggestion regarding the reclosure which the patient complained of. The electric burr is not very easily managed in the nares, even with the finger as a guide, but he believed the perforation could be very easily made by means of a large rasp which would penetrate most of the bony obstruction. If not, a hand chisel could be used for the first opening and then a rasp could be used to make the hole as large as necessary. Having completed this a hard rubber plug, which is flattened so that it will not obstruct the nasal spaces is drawn by means of a catheter into the nose and fastened in place by means of a tape drawn into the opposite nostril with a bit of gauze over the columella. He had removed a bilateral obstruction that had existed since childhood in this manner, with good results and great improvement in speech, but ten minutes after the patient was returned to his room he was called to see him because the man was in a fit of anger because he could not talk to suit him. The nasal twang distressed him and he insisted upon stuffing cotton into his nose so that he could get his old manner of speech back.

DR. JOHN CAVANAUGH recalled the case of a child of about twelve years in whom the parents would not permit operation. The tonsils and adenoids had been removed, the latter on three different occasions, the inferior and middle turbinates had been removed and the mother told him the doctor had said something about removing some of the ethmoids on that side. Dr. Cavanaugh discovered the post-nasal obstruction in trying a through and through irrigation, but the mother would not consent to further operation.

DR. FRANK J. NOVAK, JR., asked whether there was a true anosmia, and whether Dr. Lebensohn had introduced any odoriferous substance directly into the nasal cavity. He thought that only in this way could one tell definitely whether or not there was a true anosmia.

DR. JAMES E. LEBENSCHN (closing) thought the point Dr. Sonnenschein emphasized in regard to the ear conditions being only secondarily due to nasal obstruction was important.

He was very glad Dr. Beck mentioned having such a large number of cases, and felt that many cases were not reported because their rarity was not realized. He thought the profession should be more alive to this condition and thus avoid

doing secondary adenoidectomies and other unindicated operations.

Those who had used rubber tubes had found them unsatisfactory because they produced an irritating discharge and he did not know whether Dr. Beck's hard rubber plug would have the same effect. He had had no experience with the electric burr but had made the opening with trephine and rasp, very much as Dr. Beck suggested. Others who had operated by means of the burr, under local anesthesia, had not found this a satisfactory procedure.

DR. ELLISON L. ROSS read his inaugural thesis on: "Some General Effects of Local Anesthetics Administered as in Tonsillectomies."

(Abstract.)

The cause of the occurrence of excitement, faintness, dyspnea and paleness in varying degree during an operation in which local anesthetics were used, was the subject of discussion. Cocain, novocain and adrenalin were the drugs suspected of causing the disturbances by their action separately or synergistically.

In a previous paper the author had shown by animal experimentation the following facts:

1. Submucous injections of cocain and adrenalin bring on systemic reactions similar to those produced by intravenous injections of the drugs.
2. Submucous injections of small doses of cocain and adrenalin are capable of producing enormous increases in arterial and intracranial venous pressures. The intracranial venous pressure was relatively increased twice as much as the arterial pressure. In the animal series the arterial pressure was increased 223 per cent., and the intracranial venous pressure 467 per cent.
3. Submucous injections of cocain and adrenalin act synergistically. The average rise in arterial pressure due to adrenalin alone was 8 per cent., due to cocain alone was 83 per cent., and due to the two drugs injected at the same time in the same dosage was 223 per cent.
4. Sufficient cocain is absorbed from sponging the pharynx with 20 per cent. cocain to markedly increase the action of adrenalin.
5. Novocain does not neutralize the synergistic action of cocain and adrenalin.

Observations as to systolic blood pressure were made on twenty-three cases of tonsillectomy done under local anesthesia. In all cases the throat was swabbed with cocain, followed by injections of adrenalin and novocain. The strength of the cocain varied from 8 to 20 per cent., the adrenalin from 2 to 5 per cent., and the novocain from $\frac{1}{2}$ to 2 per cent. A part of the cases were injected on one side and operated before the other side was injected.

The results led to the following conclusions:

1. A rise in blood pressure took place in every case. The range was from 20 to 114 mm. of mercury rise in systolic pressure. The average rise was 41 mm.
2. The cases that showed marked disturbances had an average rise of 66 mm.
3. The average of the groups of cases in which one or both sides were injected at once showed that one procedure was no better than the other.

From the results on animals and the results obtained on people, the author was led to conclude that the mechanism of the majority of the disturbances from the action of adrenalin and cocain is due to the marked rise in arterial and intracranial venous blood pressures and the very much greater relative value of the latter. These changes would give rise to intracranial venous stasis which would produce cerebral and medullary asphyxia. Asphyxia of the cerebral cortex would produce first a brief stimulation which would be evidenced by anxiety, restlessness and irritability. This would be followed by cortical depression which would lead to faintness. Medullary asphyxia would produce the dyspnea and rapid breathing and paleness.

DISCUSSION

DR. OTTO STEIN asked whether there was any attempt at controls in the experiments and whether the position of the patient was taken into consideration, whether they were upright or reclining. He believed the injection of water or salt solution would produce an effect on the blood pressure.

DR. J. GORDON WILSON said that the knowledge of the synergistic action of drugs had been known for a long time. It had, for example, been recognized that two drugs together may act on a structure, e. g., the intestines with a much greater potency than the summation of the actions of each separately. The explanation is not known. But the synergistic action of adrenalin with cocain is not to be grouped with the similarity of actions of so-called adjuvants. That cocain and adrenalin together act synergistically appears to have attracted little attention from clinicians. The great importance of the consideration of such action was shown by Dr. Ross' paper and might well make one thoughtful.

The current opinion of the conjoined action of adrenalin and cocain has been recently expressed in a text book by a distinguished clinician; namely, that (1) by injecting adrenalin one contracts the blood vessels and stops, or lessens absorption of cocain, (2) that adrenalin acts as a physiologic antidote to cocain. To the suggestion that adrenalin acts as a physiological antidote to cocain, Dr. Ross' experiments are in contradiction. The very great rise in arterial and intracranial venous pressure from the combined action of cocain and adrenalin makes one pause and consider how little we have realized how great a disturbance of cranial circulation we have been bringing about with these so frequently and freely used drugs. It makes one pause and consider whether the advantages of swabbing a throat previous to tonsil operations in which adrenalin and novocain are injected, are not offset by the disadvantages of this synergia.

Further, these experiments indicate the explanation of the symptoms frequently seen in operations following the conjoined application of cocain and adrenalin, and that we are dealing not with a diminished arterial pressure but a rise of arterial and venous pressures.

DR. EDWIN MCGINNIS thought the paper was very illuminating and interesting. It bore out some clinical findings he had observed in using local anesthesia in nasal and tonsillar operations. Some years ago he eliminated the use of adrenalin in doing tonsillectomies under local anesthesia. He did not realize the synergistic action of the drugs, but used them with a definite idea in view. The reason for using the adrenalin was to reduce the absorption of the cocain and to reduce the bleeding at the time of operation. He decided that in doing operations under local he did not care how much bleeding there was and that the adrenalin could be eliminated. He noticed that with the topical application of adrenalin in the nose he got as much upset at times as with cocain alone, and he now paints the mucous membrane once with 10 per cent. cocain and then injects the novocain. In this way he gets less upset for the patient, probably because there is less synergistic action from the novocain with the elimination of the adrenalin.

DR. HARRY L. POLLOCK said he would like to see Dr. Ross experiment with the cocain application. Formerly they used the 5 to 20 per cent. cocain in operating on the nose but had a great many of the toxic effects, particularly with the weaker solution, the 5 and 10 per cent., which they attributed to the fact that they got more absorption. The higher the percentage of cocain the greater the astringent action on the blood vessels and the less the absorption. For several years they had used nothing but the cocain flakes, dipped in very weak adrenalin solution and applied to the mucous membrane. Since they have followed this plan the toxic effect has been much less pronounced. In doing a suspension or in nasal work they use the cocain flakes in large amounts and have had very few untoward effects as compared with the cocain solution. He believed this was due to the astringent action on the mucous membrane and the small blood vessels preventing absorption into the system.

DR. ROBERT SONNENSCHNIG thought this was one of the most valuable papers that had been offered before the Society in a number of years. Many of the statements made corroborated things which, from a clinical standpoint, he had felt for a long time. Warned by an experience in the Vienna Clinic some eighteen years ago, where two patients died immediately after a submucous injection of cocain, he had never used it. In recent years he had used no cocain at all except in those patients who were so sensitive that the introduction of the needles was very painful, or where the pharyngeal reflex was so active that it was necessary to use it. Preliminary to nose and throat operations he had seldom used morphin because he could not see that those patients who had received morphin had any less difficulty than occurred in those cases in which it was entirely omitted but that the opiate often did cause nausea or vomiting. He thought that the simpler the technic and the less drugs that were used, the better for all concerned. The substitution of apothesis made cocain practically unnecessary for throat work. They had found very few indications of syncope or other untoward symptoms during tonsillectomy since using a modified technique with alcohol regarding which a paper would soon be read.

DR. GEORGE W. BOOT spoke of a tonsillectomy where the operator brushed over with a 5 per cent. cocain and then injected a 1 per cent. novocain to which adrenalin had been added. The patient had a blood pressure of about 280 at the time of operation but the operation was performed because pus was exuding from every crypt. During the operation the patient developed great anxiety and complained of intense pain over the region of the heart. She went into collapse and they thought she was dead but after giving a hypodermic of morphin the distressing symptoms passed over and the next morning she was all right. She died a year later of apoplexy.

DR. FRANK J. NOVAK, JR., said that in the Army when they were unable to obtain novocain they used apothesis with good results. They had unpleasant results following the use of cocain so they used apothesis topically for all nasal operations. While the induction of anesthesia required a longer time the anesthesia was as complete as that obtained with cocain. Since that time he had used 5 per cent. apothesis topically with excellent results in all nasal operations. He has not used cocain since 1917.

DR. ELLISON L. ROSS (closing) said that their cases were in a partial reclining position when operated upon.

The psychic influence suggested as a cause for increased blood pressure, was always to be taken into account. The injection of water in the place of local anesthetics had not been tried. Since a great part of the work described was done on anesthetized animals it was certain that the drugs have a very large proportion of the influence exerted.

He had not tried cocain flakes but thought that the concentration would make no difference as long as adrenalin was injected afterward. The astringent action of the flakes of cocain would certainly tend to decrease the rate of absorption.

Dr. Ross' idea was not to condemn the use of adrenalin, but of cocain. He does not use cocain at all in working on tonsils, but thought that if one wished, it could be used after the injection of adrenalin and novocain. After three to five minutes the adrenalin would all be gone and so could not exert any synergistic action with cocain.

CHICAGO OPHTHALMOLOGICAL AND CHICAGO LARYNGOLOGICAL AND OTOLOGICAL SOCIETIES.

Joint Meeting April 16, 1923.

DR. ROBERT VON DER HEYDT, President of the Chicago Ophthalmological Society, in the Chair.

MELANOSARCOMA OF THE LIMBUS.

DR. WILLIAM H. WILDER had presented this patient on several previous occasions, and it had been thought that enucleation would be necessary; but intensive radium treatment had greatly improved the condition. The patient had received over 90 applications, varying in time from ten to fifteen minutes, in doses ranging from 25 mgs. to 100 mgs. Following these the growth began to disappear, so that at this time none of it was seen, even the pigment having almost entirely disappeared.

SERIOUS TENONITIS; REPORT OF A CASE

DR. WILLIAM L. BENEDICT AND DR. MARY S. KNIGHT, Rochester, Minneapolis (by invitation) reported a case.

DISCUSSION

DR. D. T. VAIL, Cincinnati, Ohio, believed that Dr. Benedict had presented another ophthalmologic entity, one that must be taken into consideration in the differential diagnosis of orbital cellulitis. Any acute orbital disease which was bilateral, which had chemosis as a prominent symptom, which had immobility of the globe and deep tenderness on pressure, with pain in the eyeball would, in the future, call for a consideration of tenonitis in the differential diagnosis. Perhaps, the disease was considered uncommon because it was not recognized.

Dr. Vail recently encountered a case which was in many respects very similar to Dr. Benedict's although the diagnosis of serous tenonitis was not made. This patient, a medical practitioner, was confined to his room in one of the hospitals of Cincinnati for several weeks with acute articular rheumatism. Many joints of his body were affected with painful swelling. The infection also produced myocarditis, endocarditis and pericarditis, with effusion in the sac; also some pleural effusion which produced painful and difficult breathing. He ran an erratic septic temperature, but just as he was beginning to feel fairly comfortable he developed the symptoms of orbital abscess affecting his right eye. Dr. J. A. Thompson diagnosed ethmoiditis and advised ethmoidectomy.

The man had somewhat the same group of symptoms that Dr. Benedict described; without, however, any signs of ulcer. While serous tenonitis was not diagnosed, Dr. Vail now thought it quite likely that it was a genuine case of this disease. The patient had the intense chemosis, the pain and the fixation of the eyeball in the socket. The greatest swelling was in the region of the tear gland, and so the diagnosis was acute dacryoadenitis. After three days the trouble began to develop in the other eye and went through the same clinical process. When the second eye became involved, it was manifest there was no orbital abscess present, and hence no operation was performed. Both eyes made a perfect recovery. The vision was never affected.

Dr. Vail has incised the chemotic swelling using a sharp von Graefe knife and making many slits and stabs to create drainage, but he confessed that drainage did not result. The fluid is too albuminous to drain away. There seems to be too much fibrin present for that. He also had removed strips of the membrane with scissors, thinking to secure drainage in that way, but in this method the drainage was not satisfactory. The procedure that Dr. Vail had found did best in cases of extreme chemosis was complete tenotomy of the

orbicularis palpebrarum muscle. This was a form of canthotomy at the external canthus, performed, not in a line with the palpebral fissure, but by cutting the ligament across at right angles, to sever completely the orbicularis muscle from its outer attachment; cutting obliquely upward with one cut and obliquely downward with the other, and in doing so severing skin, tendon and mucous membrane at one clip. In this way the tension of the unyielding lid margins was broken, permitting the eyelids to fall away and relieve the stasis of circulation, the increased diapedesis and the transudation of serum within the tissue. It was never necessary to repair these cuts at the outer canthus, for in ten days time after the original trouble had subsided the cuts across the tendon of the orbicularis would have healed without leaving the slightest deformity.

DR. GEORGE W. BOOT was reminded of a case which he saw at the Cook County Hospital last year. A man of about 40 years was admitted for an emergency tracheotomy. There was marked stenosis of the larynx with a very obscure history of its origin. The condition in the larynx resembled seleroma. The right eye had been removed several years before on account of accidental injury. The left eye was markedly proptosed and immovable. The conjunctiva was chemotic and protruded between the lids. The periosteum at the margin of the orbit was thickened. A portion of this thickened orbital margin was removed for microscopic examination and was reported to be simply inflammatory thickening. No pus was found in the orbit at any time. The conditions in the larynx and in the orbit were apparently similar and related processes. The Wassermann was negative and antisyphilitic treatment was without effect on the process. X-ray pictures failed to show any new growth in the orbit. The patient was under observation for about a year, and when last seen the condition was unchanged.

Dr. Boot asked Dr. Benedict what amount of motion there was in the eye after the process had subsided. He criticized the treatment by salicylates, because of the small dosage, and said that if salicylates were to be given at all not less than 100 grains a day should be administered.

DR. BENEDICT, in closing the discussion, said that the ulcers that occurred in the case reported were not a part of the disease, and in only one reported case were ulcers found to complicate the course. He believed they were due primarily to the chemotic condition of the conjunctiva, folding over the cornea, interfering with its nutrition, and allowing a recess where an ulcer could form. Also, the lower margin of the upper lid struck the cornea, and rested at the point of the chemotic junction, thus aiding the production of ulcer. The ulcer was a complicating factor in the diagnosis. If, at some time during the two months the condition had existed before examination, a corneal ulcer had developed, and the eye had become secondarily infected, it would have been impossible to rule out panophthalmitis. Because the fundus was clear, and there was no evidence of infection in the other eye, and because it was known that the two eyes had been the same up to the time the ulcer appeared, he considered that he was dealing with a disease in which the corneal ulcer was a complicating factor. If the tenonitis had occurred in one eye only, diagnosis would have been more difficult.

As to Dr. Boot's question regarding the motility, the eye now had full motion. One would naturally expect some restricted motility, because Tenon's capsule was connected with the walls of the orbit by dense bands which had some muscle fibers in them, which served as check ligaments, and the check ligaments were involved in the inflammation. If those bands were made thicker and stronger following the inflammation and became contracted, one would expect limited motility, but this patient had full return of motion.

The treatment was largely experimental because he could find no precedent. If larger doses of milk had been given, he might have obtained some relief. At that time, he believed it advisable to start with from 3 to 5 c.c. of milk, and unless there was a reaction to increase to 25 or 30 c.c. However, subsequent experience with milk had led him to believe that large doses should be given. The salicylates were given in as large doses as the patient could tolerate, although he knew that larger doses were indicated. This patient could tolerate only from 50 to 60 grains a day.

That this case could not be considered one of tenosynovitis was borne out by the structure. There was no synovial membrane or fluid within the capsule, comparable with that found along tendons. This should be borne in mind, and possibly every reported case would throw more light upon the character of the disease.

OPERATIONS FOR LACRIMAL DISEASE

DR. JOSEPH C. BECK, from the rhinologist's standpoint, presented his personal experiences with the various operations on the tear sac, beginning with the Toti, followed by the West with modifications, by Clark, and then by Beck's modification of West, then the Yankauer, Sauer, Wiener, Halle, Mosher, and finally the most recent development of a method of his own.

He gave no definite statistics as to results, but stated that practically all of these methods were a sad commentary on successful surgery, in the attempt to obtain normally acting physiologic structures. Most of the cases were reoperated with the removal of the tear sac, either by himself or others. The greater number of those not yet reoperated were going about with an epiphora. He brought out the importance of the pathologic changes of the tear sac, as to the indication for the operation. He also brought out the points concerning reparative osteitis in the bony excision of the lacrimal groove. The principle in his own latest modification of these operations consisted in the retention of a hard rubber tube in the newly made tract between the tear sac and the nose. This tube remained in place for ten days, thus preventing the reclosure by the reparative osteitis.

DISCUSSION

DR. HARRY GRADLE agreed with Dr. Beck, that he had not seen satisfactory results from tear duct operations of any type. The flow of pus was stopped, but in a large percentage of cases a stenosis of the passage remained; and restoration of function was accomplished in less than 50 per cent of the cases. In getting results, restoration of function must be kept in mind.

He thought there was no difficulty in the chronic suppurative cases in stopping the pus, but that it was extremely difficult to accomplish the opening of the passage and keeping it open. In a few cases, medical treatment, added to the probing, would accomplish this purpose, but only in a comparatively small number. Operative measures, also in a small percentage, would accomplish this, but the solution of the problem had not yet been found. He hoped that Dr. Beck's operation would prove the solution, but thought it remained for time to show. Restoration of function must occur before a case could be considered cured. To accomplish that, one of the absolute essentials was that the lower canaliculus should not be slit, as had been done in the past. The profession was getting away from this and fewer and fewer slit canaliculi were seen at present.

DR. GILBERT E. SEAMAN, Milwaukee, Wisconsin, said chronic suppurative dacryocystitis was a constant menace to the eye. He did not regard a radical procedure as being a failure because there was occasionally some mucous secretion. He had had several cases where the patient had been entirely satisfied with the result. From the reports of the lack of success from the intranasal operation, he would not abandon the ophthalmic operation for any intranasal procedure he knew anything about.

DR. MICHAEL GOLDENBURG did not agree with Dr. Gradle's statement, "that one could not state a cure had been effected, unless the function of the part was restored." If a part was so diseased that it could no longer function it must be re-

moved. A gangrenous leg, beyond the stage of restoration, would have to be amputated. Its replacement by an artificial one could not be expected to function normally. The statement that only 50 per cent of the cases were cured, had not been his experience. It was true, that some epiphora continued after the extirpation operation, but, surely, not so annoying or marked, and above all, the dangerous suppurating mass had been removed.

One should not lose sight of the fact that a lacrimal sac that came to the operating table had been pouring a highly infectious material into the conjunctival sac for months. This naturally must result in a chronic conjunctivitis, and the mere removal of the diseased lacrimal sac could not be followed by an immediate normal conjunctiva. The diseased conjunctiva then should be appropriately treated. It was further true that in some cases in spite of this treatment, epiphora still persisted. One should then remove the accessory lacrimal procedure. The majority of cases complained of epiphora only when exposed to the wind.

The lacrimal sac extirpation did not demand extraordinary dexterity or technic. It did not destroy normal tissue and did completely remove a diseased part that was dangerous to the eye. It had been his observation in the last few years, in a majority of cases to find a cleft or dehiscence in the bony floor of the lacrimal fossa through which a Bowman probe could readily pass into the ethmoidal region. He was inclined to think that probably many of the suppurating sacs were secondary to ethmoidal disease. He suggested careful investigation of these parts.

It was his practice in a suppurative case that had existed for some time, which did not respond to ordinary syringing in a reasonable time, to remove the sac. He rarely used the probes for any other purposes than exploration. His great objection to all the intranasal operations was that they did not remove a suppurating mucous membrane; that pus continued to be expressed into the conjunctival sac, and if the opening into the nose remained patent, there was the added danger of infecting the paranasal sinuses while in the recumbent position during sleep.

CLARENCE LOEB, M. D.,
Corresponding Secretary.

CHICAGO OPHTHALMOLOGICAL SOCIETY

May 21, 1923.

DR. ROBERT VON DER HEYDT, President

CYST OF THE IRIS.

DR. GEORGE S. DUNTLEY, Bushnell, Illinois, said that a patient came in three weeks previously, complaining of not being able to see well with the right eye. The history was, that when he was a baby 18 months old, he fell on a nail which penetrated the eyeball. He had no care other than that of a general practitioner, who said, "he had a black eye." He was accepted in service with a vision of 20/40. At the present time his vision was 20/100. The pupil was partially dilated and there was a scar on the iris. The pupil was slit like. There were two lobular cysts of the iris extending down on each side, partially obstructing the pupil. A portion of the lens was in the lower part of the pupil. The case had been seen by many ophthalmologists, and considered by some to be a foreign body, but Dr. Duntley believed it was a lobulated cyst.

DISCUSSION

DR. GEORGE F. SUKER said he had seen the case in the morning, and by transillumination in a very dark room it proved to be a cyst of the iris. In the lower portion of each lobulated cyst there was debris, probably degenerated portions of the iris, with clear fluid above. He did not believe it was malignant.

The reason it was lobulated was because the capsule in the upper portion had caught the iris. With transillumination, a red fundus reflex was seen clearly throughout both these cysts. The iris was thinned out or atrophied and depigmented. The patient had relatively fair vision. The capsule was apparently intact. As to a foreign body being present, there was no evidence of siderosis. Undoubtedly, some conjunctival tissue would be found in the upper wall of the cyst, on the order of an inclusion cyst. The vitreous was not prolapsed into this cyst, as the posterior capsule was apparently intact.

DR. E. V. L. BROWN said it was interesting that an eye injured at the age of eighteen months had apparently gone on to the usual development of a normal eye. Many eyes that were injured in early childhood degenerated, and the patient had a much smaller eye than normal.

INFLUENCE OF OCULOMOTOR ON BEHAVIOR OF PUPIL

DR. GEORGE F. SUKER gave a detailed anatomic description of the pathways for the various pupillary reactions, illustrated by numerous charts. The sympathetic, sensory and motor nerve tracts for the pupillary reactions were schematically drawn. His remarks were an introduction to the papers of Drs. Cushman and Lifschutz.

DR. JACOB LIFSCHUTZ stated that the iris was under the influence of three nerves: 1. The oculomotor which innervated and controlled the sphincter. 2. The sympathetic which supplied the dilatator muscle and the blood vessels of the iris. 3. The trigeminus which supplied sensibility to the tissue of the iris.

The normal pupillary reflexes could be divided into four groups: 1. Those depending upon stimulation of the pupillomotor zone in the retina. 2. Those associated with the ocular movements. 3. Those resulting from stimulation of the sensorium of the body. 4. Those originating in the cortex.

A lesion destroying the pupillary fibers between the point of their separation from the optic tract and the sphincter nucleus would produce either a unilateral or bilateral Argyll Robertson pupil; i.e., the reaction of the pupil to light would be abolished, while the associated reactions to convergence and accommodation would remain unaffected. A similar condition would also result from a destruction of one or both sphincter nuclei, or of the fibers leaving the sphincter nucleus, before they joined the fibers from the accommodation center and became incorporated in the trunk of the third nerve.

In considering the disturbances of the consensual light reflex, it must be borne in mind that this reflex was dependent upon the integrity of the centripetal pathway in the illuminated eye, and the centrifugal fibers of the tested eye. This was due to the semidiscussion of the pupillary fibers at the chiasm, and therefore the reflex might be absent in an otherwise perfectly normal eye.

One of the most important clinical pupillary entities, which deserved special consideration, where the condition of the pupil was a result of a third nerve lesion, was the so-called Argyll Robertson pupil. While this condition might be present in such cases as general paresis, cerebral lues or other cerebral diseases, multi-

ple sclerosis, etc., it was so frequently associated with tabes, occurring in about 70-95 per cent of tabetics, that it was almost pathognomonic for this disease. In fact, neurologists considered the Argyll Robertson pupil as one of a triad of symptoms of tabes, the other two being incoordination and loss of knee jerks.

Tabes being a progressive disease, it was obvious that the loss of the light reflex was a symptom which might develop gradually, but when fully established, the condition was, as a rule, permanent. Hence, in our examination, one must not always look for a complete loss of light reflex, which probably occurred in the later stages of the disease. A derounded, irregular pupil, a relatively delayed, feeble or sluggish reaction to light, an incomplete and ill sustained miosis to strong illumination, or a perceptible difference in strength and time of pupillary reaction to accommodation and light—all possessed unmistakable significance, and should immediately arouse suspicion of a possible Argyll Robertson pupil and tabes. The diagnosis of the true condition of the pupils was also especially important because very frequently, according to most authorities, the Argyll Robertson syndrome might precede the fully developed disease for a long time, and often it was the first definite premonitory symptom of neurosyphilis.

As to the size or width of the Argyll Robertson pupil in tabes, it might be of average or normal size, miotic, or dilated, though, as a rule, most tabetic pupils were contracted, often to a pin point. In those cases where there was a paralysis of the sympathetic with loss of the sensory reflex, in addition to a third nerve lesion, there was an absence of the dilatator impulse with a spinal miosis. If, however, the sympathetic was intact, the pupils would be dilated, usually unequally. In general, miosis was considered an early symptom, while mydriasis came on relatively late in the disease and was frequently associated with advanced optic nerve atrophy and blindness, with loss of reaction to accommodation and convergence, and with ophthalmoplegias.

As to the exact seat of the lesion producing the Argyll Robertson pupil, positive proof was wanting. So far as the nerve was concerned, the weight of evidence was that the lesion was between the anterior corpora quadrigemina and the sphincter nucleus. With reference to the sympathetic, the lesion might be in the fibers leaving the Gasserian ganglion for the pupil dilator, anterior to the place where the sympathetic fibers were given off to the ciliary ganglion. Or there might be no active lesion of the sympathetic at all. The spinal miosis would then be explained by the loss of the sensory reflex which usually occurred in tabes, and which was responsible for the absence of the stimulation of the sympathetic, and hence the latter did not exert its influence over the pupil, which remained contracted. It was hardly possible that the spinal miosis was due to a lesion of the sympathetic, posterior to the Gasserian ganglion, for such a lesion would produce Horner's syndrome, which was not present in tabes.

EFFECT OF THE SYMPATHETIC IN CONTROL OF THE PUPIL AND PURE SYMPATHETIC LESIONS

DR. BEULAH CUSHMAN stated that the pupil dilator fibers were of sympathetic origin. Physiologically, the autonomic or sympathetic system regulated all functions which were involuntary. They were capable of functioning automatically, yet were regulated and inhibited by central tonic impulses.

The superior cervical ganglion, which was the uppermost sympathetic ganglion in the neck, sent a branch upward. This branch divided, forming the carotid and cavernous plexuses. Parasympathetic fibers, which arose in the midbrain and medulla, also went to the ciliary ganglion (Sollman.)

Any sensory stimulus caused a dilatation of the pupil. To follow this arc, the stimulus passed along the centripetal or receiving fibers to the posterior columns of the cord and to the center, which was probably located in the medulla. From here, all the centrifugal fibers to the pupil passed by way of the Gasserian ganglion, with its sympathetic filaments, the ophthalmic branch and the long ciliary nerves to the dilator cells of the iris. The relation of the pure sympathetic fibers to the control of the pupil could be studied through the effect of lesions and drugs.

Pure sympathetic lesions might be irritative or destructive. The irritative lesion caused a mydriasis to a varying degree, and a definite symptom complex. Spastic mydriasis might be differentiated from a paralytic, in which the third nerve was paralyzed, by the use of eserine, as eserine would cause a contraction of the pupil with the third nerve endings intact.

Irritative mydriasis was usually due to pressure from an enlarged thyroid, cervical glands, or an aneurysm. Apical tuberculosis with adhesions might cause an irritative mydriasis, and might go on to a paralysis of the cervical nerves involved.

The symptoms of the destructive, pure sympathetic lesions, had been described by Claude Bernard and Horner, and were called the Claude Bernard-Horner syndrome. The lesions were due usually to destruction of the superior cervical ganglion by trauma or pressure, such as stab wounds, burns, their scars and tumors. Negro recently noted that the syndrome was a common stigma of degeneration.

A destructive lesion which involved one of the long ciliary nerves would cause a flattening of the pupil in that half, due to the loss of tone through the dilator fibers, whereas with an irritative lesion, that portion of the pupil would be dilated.

The miosis in the Argyll Robertson pupil was probably due to a loss of the sensory reflex, involving the centripetal fibers, posterior columns or the preganglionic fibers. The diagnosis of a spastic mydriasis or miosis and a paralytic mydriasis or miosis had been studied in the pharmacologic as well as the physiologic laboratory, by the use of drugs. Nicotine paralyzes all ganglionic synapses of the sympathetic, as well as those of the parasympathetic. Cocaine in-

creased the peripheral excitability of the sympathetic system. Eserin counteracted cocain mydriasis and produced miosis by stimulating the third nerve endings. Epinephrin had a mydriatic effect under certain conditions in mammals, by producing a pure peripheral stimulation restricted exclusively to the sympathetic system. Atropin varied according to the dosage used; in usual amounts the peripheral fibers of the oculomotor were paralyzed and mydriasis occurred; with increased doses paralysis of the muscle of accommodation occurred, or cycloplegia. Dr. H. McGuigan stated that atropin was a paralyzing agent in the usual doses, but with larger doses produced some anesthesia.

DISCUSSION

Dr. JULIUS GRINKER said that ophthalmology and neurology met in various phases of practice. The circumstance that one was practicing either of these specialties did not make it certain that he always kept anatomic and physiologic details in mind. After one had been in practice many years he usually forgot theoretic details, while acquiring practical points in examination and treatment. It paid to occasionally go back to theory because it might be found that even theories might effect a change in practice.

The various theories advanced served as a working basis, and no one would think of discarding them any more than he would think of giving up the anatomic theory because of the absence of concrete proof. For instance, there were several theories to explain the Argyll Robertson pupil; it mattered little which was the true one. The really important fact was, that there was an Argyll Robertson pupil, and that it definitely meant certain things—almost always syphilis of the nervous system. He had seen it, however, in encephalitis lethargica and in other conditions, notably in chronic alcoholism. Whether the Argyll Robertson pupil was only a sign of syphilitic infection of the nervous system, or whether it was always a forerunner of tabes or general paresis, no one could tell. It was quite certain that Argyll Robertson pupils had been present for a period of ten to fifteen years, and then all of a sudden general paresis or tabes had developed. In such cases the Argyll Robertson pupil must be considered as the premonitory sign of parenchymatous neurosyphilis.

Dr. HARRY GRADLE asked Dr. Suker what was his opinion about the so-called pupillomotor area which Hess described some fifteen years ago. Did the fibers from the pupillomotor area run simultaneously with the light perceiving fibers or were they separate fibers? Judging from the anatomic chart, there were individual pupillomotor fibers from Hess' area on the retina, because of the branching from the optic tract to the third nucleus. That indicated very clearly a separation of the perceiving and motor fibers. In other words, if this chart was correct, there were two separate types of fibers from one area in the retina. That was still open to discussion. He said it stood to reason that there could only be one location for the lesion of Argyll Robertson pupil, that was between the geniculates and the third nucleus.

Dr. C. A. BURKHOLDER said there were two or three points in the papers that ought to be very forcibly impressed on the audience. One was the terrific influence that the sympathetic nervous system had upon all vital processes. Another important thing was the pupillary arc. The essayists mentioned it, but there was considerable difference in opinion among ophthalmologists as to its exact location. Ophthalmologists often said it went back of the cerebral cortex. This was not so. The light reflex arc never went behind the primary nuclei of the optic nerve. The preponderance of opinion was that this was the place where it was given off, and from there it ran down to the third nerve ganglion. It used to be called Meynert's bundle. What he wished to emphasize was that when one got a pupillary reaction from direct light, the lesion must be behind the primary nuclei of the optic nerve.

Another point he emphasized was the location of the ophthalmic ganglion. The ganglia associated with the fifth nerve

were the Gasserian, the optic, the ophthalmic and the sub-maxillary ganglia. They derived fibers from the motor, from the sensory and from the sympathetic systems.

He said one of the drawings might be misleading; it gave the impression that the tract went directly back to the cerebral cortex, but in reality it did not. The same error was to be found in the textbooks.

Dr. SUKER in closing, answered Dr. Gradle's question by saying that the retina was composed of two sets of fibers, light and motor fibers. He agreed with him regarding the opinion of Hess, that it was impossible to get any contraction from the extreme periphery. The pupillary fibers were not as intimately associated as were the sympathetics and the third nerve or the large vascular fibers. They intermingled but did not go into the anterior geniculate body.

He emphasized, as did Dr. Grinker, that the absence of the reaction to light on one side might be permanent for many years before it was present on the other side. It was reasonable that the inequality and irregularity in the Argyll Robertson pupil did not come on in both sides at the same time. The irregularity of the pupil was due to cicatricial changes in the motor and sensory impulses.

He was glad Dr. Burkhardt brought out the point about optic radiation. These arcs were given in all the textbooks. Optic radiation was in the internal capsule and did not go back to the cortex.

CLARENCE LOEB,
Corresponding Secretary.

CHICAGO OPHTHALMOLOGICAL SOCIETY

Monday, October 22, 1923.

Dr. ROBERT VON DER HEYDT, Presiding.

GUMMA IN ORBIT

Dr. G. F. SUKER described the findings in three cases of intraorbital Gumma with optic nerve involvement, and annular gumma of the conjunctiva, but the patients did not report at the meeting.

MUCOCELE OF ETHMOID WITH PROPTOSIS OF RIGHT EYE

Dr. RICHARD L. BAUER described the above case and presented the patient.

MEDULLATED NERVE FIBERS IN THE RETINA

Dr. CLARENCE LOEB presented a colored drawing of this condition, the work of a young artist in the Michael Reese Dispensary, Eye Clinic.

CONGENITAL PTOSIS CORRECTED BY THE HUNT-TANSLEY OPERATION

Dr. CLARENCE LOEB presented this case.

SYNECHIA OF THE VITREOUS TO THE CORNEA

Dr. H. M. COTTLE (by invitation) read a paper on the above condition.

DISCUSSION

Dr. ROBERT VON DER HEYDT stated that Vogt has found that these adhesions nearly always follow discission. However, this may be true only if the vitreous is semifluid in nature. Aqueous and vitreous are very compatible in the anterior chamber of an aphakic eyes. With the slit lamp, it is very easy to determine the consistency of the vitreous in the presence of a fairly transparent lens. By means of our older methods, this is possible only if vitreous opacities are present, as they betray the fluidity of the vitreous by their movements.

Dr. W. H. WILDER stated that Treacher Collins had preceded

Meller in describing adhesions of the vitreous to the cornea. His findings were based on the examination of pathologic specimens. However, he claims that during the dissection, a small tag of capsule is dragged into the corneal wound, which aids the formation of the adhesion of the vitreous, and is the real cause. Secondary glaucoma probably arises as a result of this capsulo-vitreo-corneal adhesion. Another point to be noted is the fact, that there is more danger of vitreal adhesion when the dissection is made through the center of the cornea than elsewhere.

DR. VON DER HEYOT said that the slit lamp shows that many of these strands are thin and very delicate. It is impossible to mistake them for capsule shreds. Incidentally, he wished to say that the text book definition of cataract, as including an opacity of the capsule, needs to be changed. Congenital or inflammatory deposits may be formed on it, but the capsule in itself never become opaque, nor is it absorbed in aphakic eyes. In a shrunken lens, partly absorbed, it is wrinkled. These wrinkles conform to the depression between the lamellae of the cloudy lens substance, and present double, transparent, glassy lines.

DR. H. S. GRADLE said that for adhesion of the vitreous to the cornea, it is necessary that it be preceded by a rupture of the posterior capsule and the hyaloid membrane. As both of these are comparatively firm, and as a direct lesion of them during dissection is infrequent, it is easy to see why adhesion of the vitreous to the cornea is a rather rare finding. He reported a case, where dissection caused a lesion of the posterior capsule, followed by hernia of the vitreous, which moved back and forth synchronously with the patient's breathing, but as the hyaloid membrane was not injured, the hernia eventually receded.

DR. H. M. COTTLE (closing) said, that it was interesting to know that the pathologic findings had preceded the clinical. His attention had been drawn to this condition by the deformed pupil described in the third case.

TIME REACTIONS OF THE PUPIL

DR. H. S. GRADLE described his method of investigating this subject and the instruments employed. Observations were made of the movement of the pupil by means of moving pictures, and the time periods of the different phases calculated from them. A brief latent period was followed by a primary contraction, this by a secondary contraction, which was followed by a primary and a secondary fatigue dilatation. The paper will appear in full in this Journal.

DISCUSSION

DR. G. F. KEIPER, Lafayette, Ind., said that Dr. Gradle's findings would be of great importance in psychologic research, where time reactions play a great role.

AFTER RESULTS OF STRABISMUS OPERATIONS

DR. C. W. HAWLEY read a paper describing his experiences in the operations for strabismus and their after results. He had had successes and failures in all forms of operations—tenotomy, advancement and tucking—but he believed that the form of tucking operation as advocated by Dr. Woodruff was the best.

DISCUSSION

DR. H. W. WOODRUFF said that he was glad to know that Dr. Hawley had been using the tucking operation so long, and with such good results. The most extreme cases can be corrected by combining the tucking, if necessary, with a partial tenotomy. It is rare that binocular vision and fusion can be attained. One such case he had reported before this society several years ago—a case of divergent strabismus in a myope.

DR. G. F. SUKER said that binocular vision and binocular fusion are two separate and distinct coordinate functions,

obtained only in eyes with normal muscle balance and equal visual acuity. Eyes with unequal vision hardly ever have binocular fusion. Five points are necessary for a perfect result—cosmetic, binocular vision, binocular fusion, stereoscopic vision and stereognostic vision. This is obtained only in cases of alternating strabismus, with equal vision in the two eyes. Any advancement operation is not mechanically scientific, while any shortening operation is. An advancement disturbs the lever principles of the muscles. Ocular muscles are levers of the first class, and a successful advancement puts that muscle in levers of the second class. Though mechanically efficient, harmonious and synchronous in their action when all muscles are of one class, an interposition of a muscle of another class will cause more or less cyclophoria. Advancement operations, in most instances if not in all, are but shortening operations, as the base of insertion is only enlarged by establishing a new insertion, as the tendon stump becomes firmly adherent to the overlying advanced muscle, and the advanced section is necessarily throughout its entirety adherent to the sclera. Advancements cause cyclophorias in nearly every case where the advancement is successful, while shortening does not. He has never succeeded in obtaining 20/20 vision in an amblyopic strabismic eye, and does not believe that it and fusion can be obtained by amblyoscopic or stereoscopic exercises.

DR. G. H. MUNDT asked at what age the essayist advised operation, and whether he made a preliminary attempt to correct the strabismus by refraction. He considered the above two points so important that they should at all times be considered before one can discuss the results of strabismus operations.

DR. C. W. HAWLEY (closing) said, that most of the discussion was not pertinent to the paper. Some of his patients had developed binocular vision and binocular fusion. He agreed that an advancement operation was not as good as a shortening one. The paper was intended only to give some singular results of strabismus operations, and to show that binocular fusion and vision were possible after them.

CHICAGO LARYNGOLOGICAL AND OTOLOGICAL SOCIETY

The regular monthly meeting of the Chicago Laryngological and Otological Society was held at the Auditorium Hotel, Monday, November 5, 1923, at 8:00 P. M.

The President, Dr. John A. Cavanaugh, in the Chair.

PRESENTATION OF CASES:

DR. J. HOLINGER presented a case of Bezold abscess. The patient was a man, fifty-eight years old, who showed a scar behind and above the left auricle through the tip of the mastoid down the neck to within three fingers of the clavicle. One centimeter below the mastoid the scar had a branch forward and downward and five centimeters to the rear there was another short scar as a consequence of a counter-incision. These scars gave a slight idea of the large size of the abscess which reached nearly around the whole left half of the neck. Medially from the mastoid process the typical large cell which led to the perforation into the neck was found in the floor of the temporal bone. It extended forward to close to the facial nerve, yet no injury was done to the nerve at the operation. The cell was attacked from behind the mastoid process, the dura was exposed and granulating and at the time of presentation the drum-membrane was closed and hearing was two meters for whisper.

This patient was one of four with nearly identical conditions that Dr. Holinger observed last spring. They all had been treated before he saw them from six weeks to two and one-half months and had been

seen by general practitioners and surgeons. This patient was treated for several weeks in a well-known clinic. The connection of the suppuration of the ear with the swelling on the neck was not even suspected. The unusual feature of all four cases was the slow course and the fact that they all got well. The pus does not always stop in the neck. The descent into the posterior or anterior mediastinum is sometimes very rapid.

DR. EDWIN MCGINNIS presented three cases of foreign body in the bronchus.

Case 1: C. H. F., age 4 years, on September 7, 1923, inhaled a glass headed shawl pin about two inches long. He strangled slightly and the mother saw the pin at the base of the tongue but was unable to remove it. X-ray revealed the pin in the right bronchus, pointing upward. The pin was removed by bronchoscopy on September 11th, some difficulty being experienced in freeing the point which was imbedded in the mucous membrane. The temperature, which was 100.2°F. on admission to the hospital gradually subsided and recovery was rapid.

Case 2: A boy, aged 3 years, on June 6, 1923, apparently swallowed a nail with which he had been playing. The stools were watched for six days but the nail was not recovered. The boy developed a slight cough and X-ray examination showed the nail in the right bronchus. No pain was complained of. On June 13th, 1923, upper bronchoscopy was done, without anesthesia. During the manipulation the nail was grasped but slipped out of the forceps and went into the left bronchus. It finally was grasped and removed. The temperature was 99.2°F., and rales were present on both sides the day of operation. Recovery uneventful.

Case 3: T. E., age 2 years, was playing with paper clips and one slipped down his throat. He strangled, became cyanotic and commenced to cough violently. X-ray examination showed the clip at rest in the upper part of the trachea. The child had a crowing respiration and spasmodic cough. At the Presbyterian Hospital with direct laryngeal speculum the clip could be seen, was grasped with forceps and withdrawn. Recovery uneventful.

DR. ROBERT SONNENSCHN. as a dinner talk, gave an illustrated address on "Functional Tests of Hearing."

DR. ALFRED LEWY presented a paper on "Vucin—The Use of in Intracranial Infections."

ABSTRACT

Vucin, a cinchona derivative, has been reported as a curative agent in septic meningitis and other septic conditions by German clinicians. After experimental use on dogs Dr. Lewy reports its use in eight cases of clinical meningitis. Methods of preparation and application are described. Analysis of the cases reported in the literature follows and detailed reports of the cases seen by Dr. Lewy. The summary is as follows:

All the cases described showed clinical symptoms of meningitis, viz.: Fever, neck rigidity, Kernig sign,

headache, vomiting, spinal fluid under pressure, cloudy and containing great increase in leucocytes. Five of the eight had a positive culture from the spinal fluid and all these resulted fatally. Of the other three two were brain abscess with sterile meningitis. One recovered after drainage and vucin treatment. Another died of impaction of the medulla in the foramen magnum. The third was a case of meningitis following mastoiditis, with cocci in the smear but sterile culture, with recovery.

CONCLUSION: Vucin seems to have no value injected intraspinally in generalized septic meningitis. It is suggested to try it in the cisterna magna or by subarachnoid irrigation. As a preventive in injuries or operations where the meninges are threatened with infection before the meningitis becomes generalized it may have value, but the observatoin of many more cases is necessary to determine this.

DISCUSSION

DR. ROBERT SONNENSCHN. said he did not know whether the very favorable case referred to by Dr. Lewy was the one Dr. Lewy had seen with him or not. This case was that of a little girl aged nine or ten who had had an acute otitis media for ten days. When seen by him she had a rapid pulse, a temperature of 104° F., rigid neck, severe headache, Kernig and showed the picture of a well-developed meningitis. Spinal puncture showed cloudy fluid under markedly increased pressure, 3,000 cells per millimeter, bacteria in smear but not on culture. At operation, which was performed at once, much destruction was found with the sinus exposed and the dura quite gray. The following morning another spinal puncture was made and the cell count was 7,000 and vucin was injected. The patient had a stormy time for four or five days, with a high temperature, hut gradually made a complete recovery. Dr. Sonnenschein thought that as long as there was no harm done when the vucin was injected at the time of the spinal puncture there might be no objection to its use.

DR. HARRY L. POLLOCK said that about a year or so ago he had a case of meningitis in a young lady which followed a very slight otitis media. The otitis media cleared up within a couple of days but the other symptoms developed, viz., labyrinthitis and meningitis. Spinal puncture revealed as high as 8,000 leukocytes but culture was sterile. No bacteria were found. They cultured it and injected guinea pigs and rabbits and at that time Dr. Lewy advised injecting vucin but Dr. Pollock thought this was not advisable unless bacteria were present. The patient ran a stormy course for two weeks. They did several spinal punctures and used intraspinal medication of serums and the patient recovered sufficiently to sit up when, without any warning, she got a recurrence and in the course of several weeks died. During the course of the illness twenty spinal punctures were made but no bacteria were found.

Dr. Pollock said that they found many cases which improved temporarily without any treatment, the so-called protective meningitis. They tried vucin treatment on another case which followed two mastoid operations two weeks previously when streptococci were found. Vucin was injected hut the patient died. Dr. Pollock thought that none of the cases were conclusive unless bacteria were found. He believed that these were all extreme cases and that the vucin should be used as early as possible, especially when bacteria are present.

DR. PETER BASOE said that this was the first time he had heard of vucin, but it had occurred to him that an agent like this which is possibly neutralized by the spinal fluid would be better injected by cistern puncture simultaneously with spinal puncture, thorough irrigation being thus possible. Such irrigations have been done with other substances, introducing the fluid by cistern puncture and allowing it to run out by means of the spinal puncture. He thought cistern puncture was a comparatively easy and safe procedure.

DR. NORVAL H. PIERCE asked for Dr. Carlson's opinion as to

how much effect could be expected on tissues in cerebrospinal meningitis if the spinal fluid could be changed into a germicidal fluid. Is not death produced not by the content or condition of the cerebrospinal fluid but by the pathological process that goes on in the arachnoid and especially in the pia; in other words, within the blood vessels themselves or in the perivascular spaces? It seemed to him that no matter what antiseptic might be injected into the cerebrospinal fluid it would have very little effect upon the condition of the vascular system of the pia or arachnoid unless the injected substance was specific for the pathologic process in the tissues and gained access thereto. It is known, for instance, that the reason there has been so much late syphilis is that the arsenical preparations that have been used up to the recent past have failed in their penetrative powers. Preparations which have greater penetrative power are being produced so that the spirochetes can be killed off in the nervous tissue itself. Dr. Pierce believed this same thing had a bearing on the question of all injections into the cerebrospinal fluid and asked whether the hope that these injections, whatever they may be or whatever effect they may produce in the cerebrospinal fluid *per se*, might be beneficial in the pathology of septic meningitis was justified or would they prove futile?

Dr. A. J. CARLSON was inclined to agree with the general trend of Dr. Pierce's remarks and said that certainly he should not feel like injecting vucin into the kind of patients described until he knew something more of what the drug did when introduced simultaneously with bacteria, or with bacteria introduced a little earlier or a little later, in the spinal canal of experimental animals. He was disappointed that Dr. Lewy had not done this before using it on patients.

Dr. Carlson believed that killing the bacteria in the spinal fluid would probably be of very little avail unless the drug introduced penetrated freely through the meninges and through the cells and connective tissue into the surrounding areas. One very clear example of that is offered in the gut. A number of years ago in some research work in their laboratories Dr. Dragstedt attempted to sterilize the gut by all means short of killing the intestinal mucosa. He applied antiseptics in strengths that could not possibly be applied anywhere else, on a small portion of the gut, but found that the bacteria between the cells were still there and ready to do whatever damage they could in that position. However, while very little is known as regards the nature and control of cell permeability, there is no doubt that many substances go through or diffuse through the tissues entirely independent of any circulation of fluid, cerebrospinal, lymph, or blood. Dr. Nultzer showed a number of years ago that one could cut out the heart of a frog and inject a drug peripherally and that after a while the drug worked through the entire body by diffusion. Bactericidal drugs to be effective in meningitis must go through the membranes and to the cells. Sterilization of the spinal fluid itself means very little.

Dr. ALFRED LEWY asked Dr. Carlson to state what the present status of our knowledge is regarding the diffusion of the spinal fluid.

Dr. CARLSON said that our knowledge was very limited. We do not know where it comes from or where it goes to or what it does while it is there. Some claim that it is secreted by the choroid plexus and there is some evidence in favor of that theory. Dr. Weed at Baltimore and Dr. Cushing at Boston take this view,—but it is still a theory. Dr. Becht at Northwestern has done some work that supports the theory of filtration from the blood. There seems to be no doubt that it can be absorbed along the entire course of the meninges. Carlson thought that if it was possible to remove the entire choroid plexus the spinal fluid would still form.

He considered the point raised by Dr. Bassoe important and would not expect much more vucin injected in small amounts and under slight pressure into the lumbar region, as he thought very little if any would get up into the brain. He believed the drug would be absorbed before it reached the brain but if drainage was established, up or down, mechanical transport of the drug would be facilitated. However, as Dr. Pierce said, if vucin does not get into the cells or does not retain its bactericidal action after it gets into the cells direct

bactericidal action in the spinal fluid itself would be of little clinical value.

Dr. J. HOLINGER mentioned the observations of Professor Mouckow, which seem to show that the cerebrospinal fluid is not homogenous, at least not always. For example, it was found that one may get a positive Wassermann reaction in the fluid of the lower part of the vertebral column and a negative Wassermann reaction in the upper part. Furthermore, in cases of injury it has been found that in one part of the spinal canal the cerebrospinal fluid may be decidedly bloody while in another part it is clear. Of course these observations have to be confirmed by others.

Dr. CARLSON asked if Dr. Holinger meant to imply that in a healthy individual the spinal fluid was not practically homogenous.

Dr. HOLINGER replied that so far only in pathological conditions it had been shown. We usually do not make multiple punctures of the vertebral canal in healthy individuals.

Dr. CARLSON believed there were many reasons why it should be homogenous in the normal individual. The variations in the Wassermann reaction may be due to the location of the gumma.

Dr. GEORGE W. BOOT said that he could vouch for the fact that one could do a spinal puncture within an hour after a skull fracture and get bloody spinal fluid. He had done this repeatedly. It is also possible to inject the spinal canal and cure disease as is often done in epidemic meningitis. Another point brought out by Dr. Boot was that streptococcus meningitis occasionally recovers after operation. He has had one such case. He saw a case in consultation with Dr. Holinger where a patient with streptococci in the spinal fluid recovered after a mastoid operation.

Dr. A. L. TATUM thought it was well known that any disinfectant had to be pretty strong in order to kill a germ and was then apt to kill the tissue. The most marked successes have been such as Dr. Boot mentioned, by vaccines and serums and the work with tryparsamid in the fourth stage of syphilis. It has been shown that this drug has no effect in the early stages but has a very marked effect in the late stages. This can hardly be understood at present but what Dr. Tatum wished to emphasize was that one could not pour a disinfecting solution of bichlorid, for example, on a tissue and expect to conserve it in the normal state. Disinfection *in vivo* is quite a different thing from disinfection *in vitro*.

Dr. LEWY (in closing) said that Dr. Bassoe's suggestion was included in his paper. He intended using vucin in the cisterna magna or by subarachnoid irrigation as soon as he was satisfied by animal experimentation that it was safe.

Regarding Dr. Carlson's suggestion that the drug should be injected experimentally at the same time or soon after infection of the meninges in animals, with controls, these experiments had all been done by Kolmer and Idzumi (quoted in the paper), using ethyl hydro cuprein hydrochloride (Optochin) a closely related cinchona derivative. Vucin is said to be no more toxic, but four times as germicidal. Kolmer concluded from his tests that the drug had preventive value if injected four to six hours after infection took place. With this as a basis Dr. Lewy undertook clinical verification. Recovery from meningitis with living cultures of pneumococcus or streptococcus in the spinal fluid almost never takes place. Dr. Boot's case was a rare exception. If any treatment would reduce the mortality to fifty or seventy-five per cent, he thought it would attract attention without control statistics.

Dr. Lewy had recently seen an article in the British Journal of Otolaryngology by Dr. Davis describing the result of injection of coloring matter under the arachnoid. Injected through the internal auditory meatus it all gravitated into the interpeduncular space only; injected in front of or behind the lateral sinus it gravitated into the cisterna lateralis and to some extent into the cisterna magna, but in no case did it show in the spinal canal. This made Dr. Lewy wonder if injections into the spinal canal would diffuse into the basilar region where they might do some good.

In regard to Dr. Tatum and Dr. Pierce's idea that it is a fallacy to expect local applications of germicides to reach infections within the cells, while we class this and other drugs as germicides, we do not yet know whether they act purely as

such or whether they do not also stimulate the cells to defensive activity in the manner that we believe antigens do.

DR. A. L. TATUM (by invitation) presented a paper entitled: *Reflex Vasomotor Changes in the Nasal Mucous Membrane.*

ABSTRACT

In recording vasomotor changes in the nasal mucous membranes of dogs and rabbits by means of the plethysmographic method described by Tschalussow in 1913, the speaker observed a vasoconstriction during or following partial asphyxia either by tracheal obstruction or by rebreathing of air containing CO_2 . A vasodilation was observed on artificial respiration sufficient to produce a slight deficiency of CO_2 in the blood. The vasoconstriction from partial asphyxia was prevented by section of the cervical sympathetic nerves while by contract the dilation from the acapnia seemed to be unchanged.

Subjective experiments by the speaker and others seemed to confirm the above mentioned findings of nasal vasoconstriction or a sensation of diminished nasal resistance to air passage after mild asphyxia produced by rebreathing from a rubber bag or by holding of the breath for a short time and vasodilation or a sense of increased nasal resistance on voluntary over-ventilation.

Objective experiments were devised in such a manner as to avoid irritation of the nasal passages. By leading a constant stream of air under low positive pressure through a rubber tube to one nostril air will be forced into the corresponding nasal chamber and find its way out through the mouth or if the mouth and glottis be closed, out through the other nasal passage. A side tube is connected to a tambour or other recording device so as to record the lateral pressure within the rubber tube carrying the air to the nasal chamber. Obviously the tube inserted into the nostril must fit closely so as to avoid variable air leaks and also changes in position of the ala. By such a device the speaker's interpretation of the subjective sensations of resistance to air passage were confirmed by objective measurements.

DISCUSSION

DR. A. J. CARLSON said he was proud of Dr. Tatum's work. The results may not have at present any important clinical bearing but they extend our knowledge. Dr. Carlson thought the first result (vasoconstriction or slight asphyxia) was not difficult to interpret. We know that partial asphyxia produces vasoconstriction in general. This, according to Dr. Tatum's work, includes the nasal mucous membrane. The opposite results (vasodilation by low CO_2 in the blood) were not so readily explained and that meant that Dr. Tatum or some one else would have to go ahead and see what happens in other organs under this condition. They will have to put the arm, the leg and other organs in the plethysmograph and see if when the CO_2 content of the blood is greatly reduced general vasodilation follows. This is probably the case.

Of course, it is perfectly obvious that vasoconstriction in the membrane will allow more air to go in if the other passages are open and it is obviously advantageous to secure more air in partial asphyxia, but Dr. Carlson could not see the advantage on the other side. The partial blocking of the nares by turgescence would be of no great value in preventing further ventilation.

DR. NORVAL H. PIERCE could see but a very limited applica-

tion to the pathological conditions encountered in the everyday work of the laryngologist and rhinologist. He believed it would be somewhat difficult to induce a patient to wear plugs of cotton in the nose that was already stopped up by the turgescence of hay fever. He was inclined to believe that the hay fever and so-called angioneurotic rhinitis cases which, parenthetically, are undoubtedly rapidly increasing in numbers, have to do largely with the peripheral reflex mechanism. His reason for this was that in these cases with turgescence of the turbinates, the excretion of large amounts of colorless mucus and attacks of paroxysmal sneezing, amelioration of the symptoms may be obtained by cauterizing the sensitive areas of the nose,—the anterior head of the middle turbinate body, the anterior head of the inferior turbinate body and the tuberosity of the septum. Especially are the fits of sneezing reduced in frequency and violence, which indicates that we influence a smaller reflex arc than the one with which Dr. Tatum has dealt. Unfortunately, in most other pathological conditions in the nose there are constant plugs in the nose. For example, the so-called mulberry hypertrophies of the posterior ends of the turbinates. Then there is the true hyperplasia of the turbinate bodies, or when the nose is plugged up with polypi there is nasal asphyxia—stoppage of the nose, but these tissues cannot contract. It has been said that hay fever patients when they go into an icebox and remain there for some time have contraction of the nasal mucosa and breathe very much better for some time after they come out. That may be explained by assuming that the stimulation of cold air causes constriction of the nasal blood vessels.

DR. J. HOLINGER asked whether Dr. Tatum made the opposite experiment with negative pressure. This experiment is being made in offices nearly every day and is the suction treatment of diseases of the nose. The invariable result is a great relief of the stuffiness and congestion and after suction the nose is much freer and clearer for many hours.

DR. EDWIN MCGINNIS thought that a practical point to be gained from this experiment was that it is well not to do anything to the nasal mucosa that will inhibit the action.

Regarding hay fever and the fact brought out by Dr. Pierce, that the hay fever patient is able to breathe better after being in an ice box for some time, Dr. McGinnis' explanation was that in the icebox there was no pollen and if the patient remained in long enough the reaction subsides and the mucosa again takes up the normal function, with the result that the patient has good breathing until he gets more pollen in the nose, then he has another upset. It has been noted that after a good rain that washes away the pollen and dust the patients are much better. In this locality when there is an east wind blowing off the lake these patients are much more comfortable, which seemed to Dr. McGinnis to prove that this is a question of infection and not vasomotor reaction.

DR. ALFRED LEWY asked if anything in Dr. Tatum's experiments threw any light on the commonly observed phenomenon of nasal obstruction alternating sides.

DR. J. GORDON WILSON said the understanding of the influence of the nervous system on the mucous membrane of the nose and on the nasal capacity is of fundamental importance to rhinologists. Hence, they welcome any physiological light that can illumine their ignorance. When it is recalled that the nasal capacity and respiration can be modified by a nervous system extending from the fifth cranial nerve to the lumbar plexus, when one adds to this, cerebral stimuli—emotions (fear)—which apparently modify nasal capacity as well as respiratory rate and depth, one is impressed with the wide source of respiratory influences. Luckily, this wide range is not constantly in activity. The vague and sympathetic and dorsal nerves apparently can do the greater part of what is required. Yet the adjunct system can operate and may destroy the co-ordination through which the normal pathways act.

The technic on which the results presented were based he thought had advantages over those of the Russian observer. The addition of a tambour will give readings more easily read. The constant stream of air, if it can be made effective, is a decided step forward. It has always seemed to him that to base deductions in regard to variations in nasal capacity from the sensation of diminution of nasal resistance, following voluntary apnoea, is open to the following objections:

(1) The inspirations following the voluntary cessation of breathing is a compensatory dyspnoea and the air is taken in with greater negative pressure.

(2) On account of the increased negative pressure the air pathway through the nose is altered. Therefore one has increased suction plus altered nasal relations.

(3) Reactions arising from the glottis give sensations difficult to eliminate.

These objections would appear to be obviated by a constant stream of air at a fixed pressure.

The anatomy of the turbinates shows a structure designed so as to respond rapidly and with great mass variations to respiratory needs and therefore is a mechanism adaptable for nerve reflex stimuli. The venous spaces with their thick walls of muscular and elastic tissues readily and quickly react to stimulation. But is the stimulation always reflex from the periphery? What about the stimuli which arise directly in the respiratory and the vasomotor centers from changes in the circulating blood? It appeared to him that one has also to consider local changes in the nasal vessel walls in response to the circulating blood in the venous sinus and it may be influenced by absorption from surface epithelial cells.

GREENE COUNTY

The quarterly meeting of the Greene County Medical Society was held in Greenfield on Friday, Sept. 12, 1924. The meeting was called to order by the Vice-President, Dr. Wm. H. Garrison, at the city hall. The minutes of last meeting was read and approved. The attendance was not large as it was uncertain whether the meeting would be held on account of muddy roads until late that morning. Roadhouse and White Hall were liberally represented, but Carrollton failed to show up. The program was as follows: "Blood Transfusion," Dr. A. R. Jarman. Adjournment was taken for a chicken dinner served at the Palace Hotel. After dinner, meeting was called to order, Dr. Wm. H. Garrison read interesting paper on "Tetanus," which was followed by a general discussion. Dr. Robert Barclay of St. Louis gave an instructive talk on diseases of the ear.

The regular annual meeting will be held in Roodhouse, the second Friday in December. The Greene County Medical Society cooperating with the State Department of Public Health in the Better Babies Conference at the Greene County Fair, will assist in the examination of the babies.

A vote of thanks given to Doctors Cravens and Bulger for the excellent dinner.

W. KNOX, M. D.,
Secretary.

Marriages

HAROLD HAMNETT to Miss Mary Kathleen Kopp, both of Princeton, Ill., August 2.

OSCAR S. LENT, Chicago, to Miss Myrtle L. Childers of Darlington, Wisconsin, recently.

CHARLES ARTHUR POTTER, St. Charles, Ill., to Miss Althea Whitney of Aurora, at Wheaton, August 26.

Personals

Dr. Emil Windmueller, long a resident of Woodstock, has removed from Los Angeles to Sacramento, where he will take over the practice of Dr. Crawford during the latter's absence in Europe.

Dr. Joseph Aspray, of Spokane, Washington, gave an address September 11 before the Chicago Roentgen Society at Cook County Hospital, on "A Superior Routine Technic in the Roentgenographic Examination of the Nasal Accessory Sinuses."

Dr. Max Thorek, Chicago, gave an address on "Studies in the Technique and Clinical Application of Sex Gland Transplantation," before the Michigan State Medical Society, September 10. William D. Wrightson, Baltimore, formerly junior assistant sanitary engineer, U. S. Public Health Service, has been appointed health officer of the Quiney public health district.

Dr. Effa V. Davis, Dr. Helen E. Gorecki and Dr. Esther Quigley, delegates from Chicago to the Medical Women's International Association in London, have returned with glowing reports of the hospitality of English medical women. There were 305 delegates present, 22 from the United States. Canada, South America, Australia, New Zealand, India, France, Switzerland, Austria, Czecho-Slovakia, Poland, Russia, Turkey, Germany, Sweden and Norway were represented. Maternal morbidity and mortality was one of the most interesting subjects under discussion. Dr. Esther Lovejoy of New York City presided. Dr. Florence Barrett of London was elected president for the next five years.

News Notes

—St. Francis Hospital, East St. Louis, is planning a \$250,000 building.

—A \$200,000 hospital building is being erected for the Dixon State Hospital, Dixon.

—The new \$450,000 addition to the St. Francis Hospital, Evanston, will be opened October 4.

—Dr. Ralph B. Cobb has been appointed superintendent of the Iroquois Memorial Hospital, Chicago.

—Work has been stopped on the proposed enlargement of St. James Hospital, Chicago Heights.

—A new \$100,000 hospital and restaurant will be erected at the Illinois Soldiers' Orphans' Home at Normal.

—The Iroquois Hospital, of the Chicago Department of Health, is said to be doing a "land office" business in treating acute respiratory infections with inhalations of chlorine gas.

—It is reported that the state board of health closed the schools of the city of Cuba, September 12, on account of an epidemic of scarlet fever which has affected more than 100 of the 600 pupils in the schools. The disease is in mild form.

—The King's Daughters, Evanston, recently opened a home for convalescent heart patients, admitting girls and women selected from a limited group. Until the community develops, all applications are to be sent through the office of the Chicago Association for the Prevention and Relief of Heart Disease.

—Judge Walter C. Lindley declared the bonds of Dr. James E. Inskeep, Carmel, forfeited, September 9, for failure to report in the U. S. District Court for trial on a charge of violation of the Harrison Narcotic Law, it is reported. Inskeep has previously been convicted in a federal court on similar charges.

—Since January, 1921, the state department of health has conducted more than 350 clinics for crippled children at forty-two points throughout the state. A total of 8,228 patients attended the clinics and medical service was given all who were unable to obtain it from private sources. Only 10 per cent of the children seen were placed in institutions.

—It is reported, Dr. William H. Zorger and Mrs. Charles Miller, both of Champaign, who were jointly indicted by the federal grand jury recently for conspiracy to violate the Harrison Narcotic Law, were arrested, September 5, on a bench warrant. Dr. Zorger, who was also indicted separately for violation of the Harrison Narcotic Law, was released under \$4,000 bonds.

—More than 1,650 babies from fifty-one counties are scheduled to attend the State Fair Well Baby Conference this fall. This surpasses the registration of any previous year by nearly 500. Each baby will be given a careful physical examination by physicians of the state health department, and the most perfect specimens will

receive awards. The state fair conference is but one of many conducted in the state since January and about 10,000 children have been examined.

—A cordial invitation is extended to all interested in public health to attend the Fifty-Third Annual Meeting of the American Public Health Association at Detroit, Michigan, October 20-23. Headquarters will be in the Hotel Statler. The Detroit Local Committee, headed by Dr. R. M. Olin, State Health Commissioner, is engaged in arranging matters for your comfort and entertainment. You are assured of a hearty welcome from them and from the officers and members of the Association.

—The cornerstone of Rush Medical College, laid Nov. 20, 1875, was moved, August 28, in the wrecking operations now under way. The Grand Master of the Masonic Lodge of Illinois removed the box from the stone containing records that had lain there forty-nine years. There were copies of the *Chicago Medical Journal* of the year 1867, copies of Chicago newspapers, a city directory, tourists' guide for the year 1875, the Rush Medical College charter, pictures of the faculty and the valedictorian address of 1871. A number of prominent Chicago physicians were present at the ceremony.

Deaths

GEORGE W. HILL, Cave-in-Rock, Ill. (licensed, years of practice); aged 74; died, July 24.

FLORA ISETTA HARBAUGH BARNETT, Chicago; Northwestern University Woman's Medical School, Chicago, 1892; aged 61; died, August 30, at St. Vincent's Hospital, Belleville, Ill.

CLAYTON HERMAN BOKHOF, Dixon, Ill.; Northwestern University Medical School, Chicago, 1899; aged 51; died, September 3, at the Dixon Public Hospital, of peritonitis and pneumonia.

FRANCIS A. NEVILLE, Meredosia, Ill.; Hospital College of Medicine, Medical Department Central University of Kentucky, Louisville, 1887; aged 63; died suddenly, in August, of heart disease.

CHARLES EDWIN CORD, Chicago Heights, Ill.; Rush Medical College, Chicago, 1900; aged 62; was killed, September 12, when he jumped from the fifth floor of the Presbyterian Hospital, Chicago, while suffering from diabetes.

GEORGE WASHINGTON STEELY, Louisville, Ill.; St. Louis College of Physicians and Surgeons, 1899; a fellow A. M. A.; Captain, U. S. A., in the World War; aged 49; died, September 9, of peritonitis following an appendectomy at Olney Sanitarium, Olney, Ill.

FOR BABY'S DIET

HENRY L. JOHNSON, M.D.
MILWAUKEE, WIS.

Name Arthur Hamilton Age 14-2 Weight 14-2

Date Sept 5

Divide the above mixture evenly into 5 bottles and feed the contents of one bottle at the following hours to feed

☒ 4:30, 8 P. M.; 2 A. M. A. M.

of BABY'S FOOD TAKE

fluid ounces
fluid ounces
teaspoonfuls
Level

Dextri-Maltose No. 24
Malt Soup
Florena
Barley Water
Casec

A PRESCRIPTION

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Editorial

DEFECTS OF PRESENT-DAY MEDICAL EDUCATION

WHAT THE MEDICAL PROFESSION NEEDS IS MORE DOCTORS TO TAKE CARE OF GENERAL ILLNESSES AND FEWER SPECIALISTS FOR THE MORE INFREQUENT AFFLICTIONS

The flaw in the crystal is obvious where current medical education is concerned. Topheavy with specialists, and comparatively devoid of "general men," the entire system of medical education is due to shatter itself into fragments unless immediate action is taken against this inevitable catastrophe.

In the American passion for perfection, for continuous advancement and for spectacular discovery, the arbiters of medical education have lost sight of the real intent and content of medical science. Our educators are going along with rapt eyes fixed upon the distant stars of fresh achievement. They are blind to the perils of the pathway. While they seek new fields in the "just beyond," their duties are neglected and their basic strength undermined by two consequent evils.

The second evil, though the greater, is the outgrowth of the first. Medicine is always pulling itself up by the bootstraps, but in this instance medicine is actually destroying its facility for public service through its very devotion to progress. For the first of these evils is the lack of the old-fashioned family doctor. He was the man of a thousand remedies for trivial ailments. These, checked at the start, failed to develop into the terrible maladies that make necessary the high-priced, laboratory and marble-halled, hospital-bound specialist.

The second evil is the amazing growth of charlatan cults that, superseding the old-fash-

ioned doctor in the public confidence, are rapidly making such invalids out of thousands of innocent people that soon the specialist himself will not be able to help one of these abused folk.

The people will lose all confidence in the doctor if the doctor continues to specialize himself out of the common plane.

While the new-fashioned doctor has been perfecting his education so meticulously that often he himself finds his latest knowledge stale before he has had time to put it into practice beneficial to any individual member of the human race, the old-fashioned, general doctor has been passing steadily away into the realms beyond.

The present supposed shortage of doctors is at once a monument to these men, and an indictment of modern methods.

Mere text-book and clinical information are only part of a physician's professional skill. A doctor to heal best must have some practical knowledge of human nature. He must know something about the mechanisms he intends to repair as well as of the ways and means of effecting repairs. No matter what the science seemingly proves or disproves, a man is made up of soul as well as of body, and the mysterious interlocking of these component parts has so far defied all surgical clinics. People as well as people's bodies must be familiar to the capable physician.

Osler said cannily: "It is more important to know *what kind of a patient* has pneumonia than it is to know *what kind of pneumonia* the patient has."

This fact is lost sight of in many wealthy institutions. Quoting Dr. Edward H. Ochsner, "Some years ago a very learned and scientific gentleman became professor of anatomy in one of the medical schools of this city. The first six weeks of his course was devoted to a modelling of the femur in clay.

At this rate it would require an expert mathematician to figure out how long it would take this student to get around to learning much about the rest of the body, if he had six weeks to spend on a femur in mud. "Dust to dust and ashes to ashes" would get the most of us before we had made the rounds of the body, on that basis.

Educating specialists is wonderful work. The trouble with medical education today is that we

are educating specialists and not turning out doctors. Sick people need the best of care. In any instance the best itself can always be bettered. When it comes to a question of giving a few of the people unnecessary attendance and all of the people competent attendance, any honest fool will admit that it is humanity and not socialism to say that a certain amount of medical skill should be available in all communities, and to all people.

To keep high the standard of medicine and of medical education and the ethics of the profession is the aim of every honest physician. But to see the profession of medicine wither and die because the roots are neglected in order to admire beautiful blossoms, is against all morality, humanity and science.

While faulty distribution as to location is one of the causes for criticism, the main trouble is that the trend of medical schools is to produce specialists rather than doctors.

A man with a felon doesn't need a specialist, but can get along very well with a little simple medical attention that will cure him and give him a feeling that the doctor is his close friend instead of a strange financial harpy. As it is now in hundreds of communities the felon is cobbled at in the endeavor to find a cure in some home remedy, nature itself, or some patent nostrum. The consequence is that when this same man gets something more severe the matter with him than the felon, he either sticks to his nostrums or gets gobbled up by a cult. He has fallen away from the habit of the family doctor—medicine's real men.

Instead of the study of medicine being a hot-house of erudition, it should be an exposition and practice of the healing arts.

What the colleges want and what the country and profession needs is the study of medicine so arranged that a man of intelligence, of moral principle, and of talent for medicine, can learn how to make sick people well, and how to teach well people how to keep so. There is now too much detail, too much preparation, too much red tape and an absolute lack of balance. What the public wants urgently is a replenishment of the ranks of old-fashioned doctors. Until this is done the study of medicine will continue to dig its own grave.

**"AND RELIEF" AS A CLAUSE IN THE
PROPOSED NATIONAL EDUCATIONAL
BILL IS THE NIGGER IN THE
WOODPILE**

THIS "AND RELIEF" TAIL ON THE PROPOSED
NEW FEDERAL "DEPARTMENT OF EDUCATION
AND RELIEF" IS JUST THE SAME OLD
STATE MEDICINE JOKER IN FRESH
GUISE. LIKE ALL THE REST OF THIS
SOCIALISTIC MISCHIEF FROM THE
SCOTCHED SHEPPARD-TOWNER
ON, THIS TAIL, TOO, IS PRE-
PARED TO WAG THE DOG, IF
THE PEOPLE WILL STAND
FOR IT

Compulsory Health Insurance, Maternity Benefits, Birth Control and all the rest of the allied tommyrot is not by any means placed where it can do no more mischief to the public health welfare and the rights of American citizens.

Quite the contrary! In this proposed new federal "Department of Education and Relief" the socialistic havoc of the Federal Aid is up and at the world again, happy and beaming. The trailer, "And Relief" does the work. It places upon the smirking ophidian head of "Federal Aid" a nice, new and very disguising hat.

The proposal was first to include in the various departments of the cabinet a Department of Education. This is the latest bloc appeal to impose upon the Constitution so wisely drafted by our forbears, the finger prints of the individual politicians.

Of this first proposal President Coolidge, when addressing the National Education Association at its July, 1924, convention, said:

"Pending before Congress is the report of a committee which proposes to establish a "Department of Education and Relief" to be presided over by a Cabinet Officer. BEARING IN MIND THAT THIS DOES NOT MEAN ANY INTERFERENCE WITH THE LOCAL CONTROL AND DIGNITY, but is rather an attempt to recognize the importance of educational effort, such proposal has my hearty endorsement and support."

Now anyone who looks closely at the provisions of this bill will observe that its autocratic and bureaucratic ends affect the public and the medical profession caring for that public as much as did the maternity legislation.

When the Bill is presented to the approaching Congress, if any one titlts that phrase "*And Relief*" sufficiently to learn what is covered by this blanket meaning, he will find "and relief" covers a mass of soviet principles grafted upon a democracy that has flourished because it has been free from socialism.

This movement for a Department of Education seems to have started during the war, when every class that lacked a contributory finger in the Washington pie, hastened to thrust in at least one thumb, with the resultant awkwardness that has disturbed public equilibrium and public taxes ever since. Casual tracing of the movement brings the recollection that it started with teachers who by their labor affiliations during the war were classed then as agitators, and who seemed to be actuated primarily by a desire for better salaries. It must be remembered, too, that the first political party to include a Federal Department of Education, as a platform plank, was the Socialist Party, in 1908.

Those citizens who have been sick to the very soul at having government books of record thrown open so that any curiosity keen neighbor may discover the state of his household and business finances will have more to groan about if such measures win out as this "Department of Education and Relief."

It is well to bear in mind, too, that the "gold-fish" emitting the loudest complaints about this publicity baring income details are not the men of affairs but the average citizen of monumental personal pride, jealous of his individual privacy and earning only a moderate income. Perhaps, now that he has been given a taste of what socialistic supervision and dogmatic legislation do to the innermost recesses of the individual, as an ethical proposition, and to individual rights, this same citizen may vote a little bit differently on welfare legislation.

America as a young democracy laid a solid foundation stone in the insistence that individual rights shall be safeguarded, personal liberty not transcended when the practice of that liberty interferes with no one else, and that education shall be considered as sacred a right as is religious thought. Recognized as a "matter of public policy," placed beyond the reach of private agencies, yet this "education of children," *while a public interest was held by the early patriots to be simultaneously extra-governmental.*

This canny distinction was furthered by the way in which the founders of the government planned to secure the revenue for the maintenance of public education. It was deemed wise, and in the public interest to have a universal tax and to have these moneys handled separately from the moneys of the government.

Even where its financial sustenance was concerned this matter of the education of children was lifted out of the hands of professional politicians in so far as the founders of the government were able to make it so. With almost uncanny vision and admirable forthrightness the men who gave us this government limited its functions closely to the transaction of the public business with individual citizens and with other governments. Being red-blooded men of action those early patriots were not at all worried as to how much they could bleed from the public purse to destroy the very structure that they and their sons had fought and, sometimes, died to build.

This present generation seems to have forgotten the primal purpose of the President's Cabinet. Except as a matter of citizenship, these departments have no direct bearing upon the practice of medicine, or the theories of religion. Matters such as those do not lend themselves readily to secular publications except when they are broadened to include specific matters of professional interest. At the outset the Cabinet included *Federal Agencies* only—State, War, Treasury, Navy, Postal, and Legal Services, supplemented in 1849 by the Department of the Interior, a development of physical growth. But since 1889, when the Department of Agriculture was created as a sop for an especial trade bloc, the insanity has proceeded. These bloc efforts have disturbed a work of beautiful balance. They might better have been bureaus, similar to those used now for the advisory capacities of public health and of education. The precedent has been set. Coxey's Army will never die so long as political blocs and political henchmen can argue for a place in the cabinet at the expense of public welfare and the public purse. In this country a trade specialist seeks not "a place in the sun" but "a place in the cabinet."

While the N. E. A. and the cohorts thereof might prefer to have a Department of Education for themselves, minus any clutter of questions of public health or social welfare, yet the edu-

cators know that to carry their point they will need extraneous backing. And they will take this backing where they can get it.

From the Department of Labor, sundered in 1913 from the combined Department of Commerce and Labor, that had been a bloc victory of 1903, these educators seem likely to get their best support. And Labor seems keyed up to swallowing whole any dose of socialistic messing. Doubtless if this keeps on the President's chief advisor will be the head of the Janitors' bloc.

If a Department of Education Bill—with the "and relief" left out is really a necessity one might turn to a fairly cleanly drawn measure of this nature presented at the Sixty-seventh Congress, caption "S. B. 253 (Owen)."

This at least is free from Federal Aid iniquity doped up as "Sob stuff" and ladelled out generously to those "who having eyes, see not, and having ears hear not," and who by their incompetencies sell for less than the proverbial mess of pottage, not only their birthright of American citizenship but the birthrights of generations yet to come.

A PHYSICIAN ACCOMPANIES LA SALLE WHEN HE DISCOVERED THE MOUTH OF THE MISSISSIPPI, 1682

In the search for data for the History of Medical Practice in Illinois, the committee has come into possession of much information that should incite a thrill for medical ears.

We publish below three interesting items pertaining to early medical practice in Illinois, the one item furnished us by Dr. Lucius H. Zeuch of Chicago shows how a Dr. Jean Michel accompanied La Salle when he discovered the mouth of the Mississippi; two items furnished us by Dr. G. C. Otrich of Belleville, Illinois, one of these shows the court record of the first quarantine in Illinois, 1799, the other a court record of a suit for medical services, 1782.

A PHYSICIAN ACCOMPANIES LA SALLE ON HIS GREATEST EXPEDITION

After Joliet and Marquette returned from their memorable trip of discovery of the Illinois country, and the glowing account Joliet gave of the riches of the country, there was no other topic of conversation among the inhabitants of

Quebec of greater moment than the unfulfilled portion of the enterprise, the discovery of the mouth of the Mississippi. These intrepid explorers in their frail canoes, without sufficient numbers to militantly combat hostile Indians, depended for their progress upon the Calumet or peace pipe and the gentle ministrations of the good priest with his zeal for the Catholic Faith and "God," whom it so faithfully served. But hostile Indians whose ancestors had had dealings with the treacherous white men, who had invaded the lower Mississippi one hundred years before, left traditions which the Red men had learned to respect as well as the knowledge of guns and gunpowder, which they had learned to use with telling effect in their encounters with the Spaniards, whose inordinate love of gold had left an indelible enmity in the minds of the savages, so that further progress than the Arkansas river mouth was deemed imprudent by these first French explorers toward the mouth of the Mississippi. La Salle, then in the Canadian country, was commissioned to make a survey of the new country with the possibility of exploitation of its resources to replenish the empty coffers that Louis, the Grand, with his profligate courtiers, had so completely drained. With this in mind, several unsuccessful attempts were made to colonize the new country, a matter thoroughly covered in standard histories.

The expedition, however, that concerns us in our history of medicine in Illinois, which gave that marvelous man, La Salle, his greatest fame was his successful descent to the mouth of the Mississippi. Unlike his predecessors in the quest, he thoroughly planned for any exigency. He had his trusted lieutenant, Tonty, a warrior of tried ability, as his aid, who preceded him to Chicago to prepare for the journey late in 1681. When La Salle arrived in January of 1682, he found sledges to transport his equipment and men through the Chicago Portage, Desplaines and Illinois rivers, to the open waters of Lake Peoria, from which point navigation was open. With his own party, he had a priest, mechanics, a notary and, above all, Jean Michel, a surgeon, whose services and medicines were absolutely indispensable in such an undertaking to combat the scourges of the wilderness, Malarial Fever, Yellow Fever, and the injuries inflicted by the savages in warfare. Little is known about this surgeon, but we can well assume that he was

probably influenced by the accounts of the new country of his contemporary, Dr. Louis Moreau, who preceded him into the Illinois country and who had returned to Quebec and married there in 1678. Dr. Michel had married Mene Sara in 1676, which obligation evidently did not deter him from joining the La Salle expedition, for few in those days could resist the lure of the wilderness and its adventures. Then again let us not attribute his desire to leave home wholly from his own personal choice, for the early surgeons were hard pressed for money in the naked country, where patients were few and often without means. The subsidy the Crown offered for medical services was the lure that made many of the pioneer physicians leave the settled communities, with their comparative comforts, for the hardships of military service. More compensation in the form of a thrill undoubtedly was his, for he was one of the illustrious fourteen white men who reached the mouth of the Mississippi and witnessed the adding of a vast empire to his King, when La Salle, amid impressive ceremonies, planted a column and with a Cross, bearing the arms of France and the following inscription:

LOUIS, THE GRAND
KING OF FRANCE AND NAVARRE
April 9, 1682

La Salle's foresight in taking surgeon Michel with him on this expedition stood him in good turn, for on the return voyage up the Mississippi, he was seized with a serious illness and detained in consequence at the Chickasaw Bluffs (Memphis), where a fort had been established on the downward passage. Tonty was dispatched to Canada to report the glad tidings of the success of the expedition, but La Salle remained until fall under the care of Dr. Michel. The party then wended their way northward, La Salle remaining in Mackinac while his surgeon went on home to Canada, where we might assume he practiced his profession until his death in 1691.

FIRST QUARANTINE IN ILLINOIS

Minutes of the Court of Quarter Sessions of Cahokia, July 2, 1799:

Ordered in order to keep off the plague of the Small Pox that now rage on the Spanish side

that anyone crossing (the river) to be fined \$6.00 for the first offense, \$12.00 and ten days' imprisonment for the second offense and remain in prison till he or they shall pay the final fine. Goods brought from the Spanish side will be confiscated.

EARLY COURT RECORD OF A SUIT FOR MEDICAL SERVICE

At a Court, January 10, 1782.

President, George Blin,	Raphael Gagne,
J. Bte, LaCroix,	Pierre Grandmont,
Bte. Dubuque,	Joseph Cesirre.

Isaac Levy, Plaintiff, vs. Michel Buteau, Defendant.

The plaintiff sues the defendant, saying that he treated the defendant for sickness for the sum of four hundred livres and after some time the defendant assured him that he no longer felt any symptoms of his sickness. He ceased caring for him and afterwards, when he asked for his pay, the defendant refused, saying that he had not cured him entirely. Bte. Dumay, after having taken oath to tell the truth concerning the agreement between the plaintiff and the defendant, affirmed that the plaintiff was bound to cure perfectly the defendant and that he heard the defendant say that he was not cured, but only relieved. The defendant says that the plaintiff was obliged to cure him perfectly and that he was not and is not cured; that he only felt some relief from the first treatment of the plaintiff.

Augustin Angers, after having made oath to tell the truth according to his knowledge, says that the defendant was intending to go to Kaskaskia to be attended, and that he had said that the plaintiff had stopped him, saying that he was capable of curing him; and that he (Angers) had advised him to put himself under the care of the plaintiff; that sometime afterwards, when asked the defendant about the sickness, he answered that he was getting along very well; but later the defendant had told him that he was sick and that the plaintiff had ceased attending him. The defendant declared on oath that he had not known any women from the time the plaintiff began taking care of him up to the present time.

The Court condemned the plaintiff to continue attending the defendant until he should be cured, on condition that the defendant acts according to orders and does nothing that can counteract the medicines of the plaintiff, under penalty of pay-

ing the sum demanded and of being abandoned by him.

The Court condemned the defendant to pay the sum of one hundred and sixteen livres fifteen sols, a bill for which in accordance with his current account the plaintiff has produced.

The Court condemned the plaintiff to pay all the costs of justice.

The above are examples of hundreds of other interesting steps in the growth of the Illinois country portraying doctors as the "trail-blazer"—telling of their work, their want, their heroism and courage down to the present day. Everything from the earliest period of medical practice in Illinois will be set down in the history of medical practice of Illinois, now being prepared by the committee on medical history under the sponsorship of the Illinois State Medical Society.

Sold on subscription. Order your copy now. Surely you will want to have in your medical library this written record of the work of your forebears.

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ORDER YOUR COPY TODAY! DON'T LOSE OUT ON THIS!

HURRY ON DATA FOR MEDICAL HISTORY OF ILLINOIS

The time is rapidly approaching when data intended for the Medical History will have to be in the hands of the committee if it is to become a part of this tribute to the medical profession of Illinois.

A salient point is to be born in mind is that if this history is to be worthy of the work it aims to commemorate, it must be constructed coherently from the medical history of every community in the state. This means that every physician should pause long enough to supply the committee with what data he or she possesses or with information where such data may be procured. Sifting chaff from grain with chopsticks is ultra-easy in comparison with winnowing out the archives of the past. Annals of those sturdy pioneers are only partially found in libraries and court houses. By far the greater portion of desirable memorabilia is apt to be locked in garret chests and faded family albums and scrap books. Will every member of the Illinois State Medical Society make it a point to see that his community is in some way informed that this work is in progress and request for the history committee the loan of documents, pictures, or other mementoes that may be of interest or assistance?

MEDICAL HISTORY COMMITTEE

O. B. Will, M. D., Peoria.
Charles B. Johnson, M. D., Champaign.
Carl E. Black, M. D., Jacksonville.
George A. Dicus, M. D., Streator.
Geo. H. Weaver, M. D., Chicago.
James H. Hutton, M. D., Chicago.

Lucius H. Zeuch, M. D., Chicago.

Charles J. Whalen, M. D., Chicago, Chairman.

OFFICE OF THE COMMITTEE

6244 N. Campbell Ave., Chicago, Ill.

THE MORALS OF THE GIRLS OF THIS GENERATION—LIQUOR AND LAXITY BLAMED FOR LOW STANDARD OF GIRLS

Mrs. Fanny Hamilton, head of the woman's division of the Madison, Wisconsin, Police Department, in her report to the Police and Fire Commission recently said:

"In virtually nine cases out of every ten where delinquent girls were investigated, it proved to be a case of either complete lack of morals, or exceedingly low standard. The girl of this generation, as far as her code of ethics is concerned, is pitifully lacking, and while I believe with other authorities that it is often caused by a lack of proper home training, I blame to some extent the present age of 'jazz, drinking and general laxity.'

"The majority of the cases that come to my attention are girls of immature years, but very often I have under investigation girls whose ages run from 18 to 21. It is these that are the most deplorable, for while a younger girl can be taught the sense of right and wrong, as a rule the older one cannot. She is more set and immovable in her ways."

Mrs. Hamilton further states that the work done by the woman's division is growing every month and she attributes this increase to the startling lack of morals in the present day girl.

"It is a condition not of immoral girls, but decidedly unmoral ones."

HOW MUCH MORE INTELLIGENT ARE AVERAGE BUSINESS MEN THAN AVERAGE DOCTORS

Fred Kelly in "The Nation's Business," says: Every time I chance to go to a hospital to visit a sick friend I'm impressed with how much more intelligent are average business men than average doctors. One measuring stick by which I reach this conclusion is that of vanity, which, in the long run, is, I believe, in inverse ratio to intelligence.

Medical ethics still require that a trained

nurse remain standing so long as a doctor is in the room, even though she may have been up all night on a difficult case. Doctors assure me that it isn't to satisfy medical vanity, but is solely for discipline, morale and the good of the service. Why then, if standing at attention is good for trained nurses, wouldn't it be good for stenographers, accountants and filing clerks? Why not have all the clerks in an office rise respectfully every time the boss comes in? The answer is that business men are too level-headed to tolerate such nonsense.

Army intelligence tests made by the psychological division of the medical corps showed that medical officers, with the sole exception of horse doctors, were decidedly the least intelligent class of army officers. No wonder medical men feel the need of respectful attention by nurses! Incidentally, the highest intelligence shown in the army tests was by engineers—and today much business and industrial activity has become an engineering job.

SOVIET GOVERNMENT CARE OF CHILDREN A FAILURE AS THE SHEPARD-TOWNER PRINCIPLE IS OPERATED IN RUSSIA

(According to press dispatches sent out by the Chicago Tribune Company). Because after placing their children in soviet homes in the colonies, parents make frequent visits, bringing presents and caressing their children, the commissariat of education in the homes hereafter will confiscate all of the presents distributed among the children and will not permit the parents to see their children more than twice a month and, when possible, will prevent the parents displaying affection toward the children. According to the decree, "much dissatisfaction is caused among the children by parents who fail to sever connections with their children after giving them to the care of the soviet government."

MEMORIAL TO DOCTOR McMICHAEL

Ground has been broken for a new building at the Palmer Tuberculosis Sanatorium, at Springfield, to house thirty-two additional patients. With the group of buildings finished early in the year, this new building will complete the plant which is in many ways unique.

The new building will be known as the McMichael Pavilion in memory of the late Dr. Orville W. McMichael of Chicago, and in this building will be set aside a room for the free use of any tuberculosis nurse in Illinois needing sanatorium care. This room is permanently endowed by Dr. George Thomas Palmer, in memory of his mother, Ellen Robertson, by a sum of \$30,000 provided by will.

DR. ORVILLE WINTHROP McMICHAEL

With the death of our fellow member, Dr. Orville Winthrop McMichael, Oct. 2, 1924, this Society not only lost a member, but a friend; one who was ever constant in his friendship and always ready to aid his brother members with a cheerful willingness whenever asked for advice or scientific discussion.

Dr. McMichael was a soldier, scholar, teacher and above all a man beloved by every one with whom he had personal or professional contact.

Born February 11, 1867, Near Hamilton, Ontario, Canada, where his boyhood was spent, he attended the schools of that time and prepared for the University of Toronto at Woodstock College. He graduated from the University of Toronto in 1891 with the degree of B.A. He attended Hahnemann Medical College in Chicago from which he graduated in 1890. Following graduation he began his practice in Wheeler, Indiana.

At the time of the discovery of gold in the Klondyke, he joined a party and for two years sought the gold from mother earth's bosom. After much self-denial, hardships and shipwrecks as a prospector and government agent, he returned to his former home in Indiana and resumed practice, also opening an office at Ontario and State streets, and dividing his time between the two places.

At the outbreak of the Spanish-American war he enlisted with the First Cavalry, and served throughout. He was promoted from Sergeant to First Lieutenant.

When the war was over, not content with being just an ordinary doctor, but having a higher ambition, he allied himself with the Chicago Polyclinic Hospital, and in a few years rose from an assistant professor of internal medicine to a full professorship of medicine in charge of the Department of Diseases of the Chest.

During these years Dr. McMichael became immensely interested in the cause and treatment of that "dreaded" disease, tuberculosis, and decided to devote his energies to its solution, if such were possible. The physicians who have been intimately associated with him know that his success was marvelous and his great work will live through years to come to perpetuate his memory.

During the years 1906-07 he went abroad to study in England, France, Italy and Germany. On returning to this country he began the clinical study of tuberculosis, and in 1907 organized the dispensary at the Polyclinic Hospital, of which he remained the head until his death. During the years 1914-17 he was head physician of this dispensary under the direction of the Municipal Sanatorium.

Dr. McMichael was one of the organizers of the Chicago Tuberculosis Institute and was always an interested and a willing worker for its aims and purposes. As physician in charge of the Elizabeth McCormick Foundation Open Air Schools, he was enabled to see fulfilled many of his ideas as to the treatment of tubercular children and those from tuberculous families who were suspicious cases. His writings and lectures in 1916 on tuberculosis in children have been recognized as classics.

Following the death of Dr. Theo. B. Sachs, Dr. McMichael received the appointment as Medical Director of the Edward Sanatorium at Naperville, which position he filled with credit to the institution and to himself until called to the medical directorship of the Winyah Sanatorium at Asheville, N. C., in July, 1918. Returning to Chicago in 1910 he resumed his clinical practice where he has continued as one of the foremost authorities on tuberculosis.

His writings on this subject were always of the highest value to the profession and his scientific discussions always conveyed to his listeners many helpful suggestions.

Never seeking public favor, he has nevertheless held many positions of high honor, some of which were Director of the Chicago Tuberculosis Institute, Director National Tuberculosis Association, Consulting Physician Rockford Tuberculosis San., Rockford, Ill., Chief of Medical Staff at Columbus Hospital, Consultant in Tuberculosis, United States Public Health Service, Consultant for Illinois State Tubercu-

losis Association, in charge of and Chief Medical Examiner of Draft Board 54 during the war. Member of Consulting Staff Illinois Masonic Hospital, member of the Spanish-American War Veterans of which he was a post commander, and member of numerous civic and medical investigating committees.

WHEREAS, it has pleased the All-wise Ruler of the Universe to remove from our midst our beloved co-worker and associate, Dr. Orville Winthrop McMichael, and

WHEREAS, recognizing that it has sustained a great and irreparable loss, therefore be it

Resolved, by the Chicago Tuberculosis Society, in regular meeting assembled this 9th day of October, 1924, that we extend to the wife, son and father of our departed friend, our deepest sympathy in these, their most trying hours, for their great loss; the loss of a man who was beloved, honored and admired by all who knew him; and it is further

Resolved, That these resolutions be spread upon the minutes of this meeting and that a copy hereof be sent to the sorrowing and bereaved family.

(Signed)

CLARENCE L. WHEATON, M. D.

ROBT. H. HAYES, M. D.

N. A. GRAVES, M. D., Pres.

H. C. SWEANY, M. D., Sec'y.

RESOLUTIONS

Dr. William C. Clarke was born in Momence, Illinois, in 1869. He came to Cairo in 1895, shortly after graduating from Rush Medical College, and entered actively into the practice of his profession and continued so until the date of his illness, which occurred more than two years before his death, June 2, 1924.

He was City Health Officer for more than eight years, resigning on account of ill health. He performed his duty as City Health Officer in a scientific medical way without favors or partiality. By so doing the standard of public health and sanitation was raised in this city to equal that of any other city.

Be it resolved that the City of Cairo and neighboring towns have lost a good physician and citizen.

Be it further resolved that Alexander County

Medical Society extends their kindly feelings and sympathy to the bereaved ones.

Dr. S. B. Cary, Chairman,

Dr. H. A. Davis,

Dr. James S. Johnson.

CHANGE OF NAME

You will note that we have changed the name of the Bulletin from that of the Adams County Medical Society Bulletin to the QUINCY MEDICAL BULLETIN. This change has been thought best in keeping with the policy to not restrict the Bulletin to one County Medical Society. The Quincy Medical Bulletin is published in the interest of the entire medical profession of Central Western Illinois, Northeastern Missouri and Southeastern Iowa. Its influence should reach the 900 physicians practicing in the 30 counties surrounding Quincy who serve some 700,000 people. The counties the Bulletin aims to serve are (Illinois) Adams, Brown, Hancock, McDonough, Pike, and Schuyler. (Missouri) Adair, Audrain, Boone, Calloway, Charitan, Clark, Howard, Knox, Lewis, Linn, Macon, Marion, Monroe, Montgomery, Pike, Ralls, Randolph, Schuyler, Scotland, Shelby, and Sullivan. (Iowa) Davis, Lee, and Van Buren.

These counties have been selected because they are nearer to Quincy, the largest city in this territory by far, than any larger sized city outside of the territory.

We invite every County Medical Society in this territory to make the QUINCY MEDICAL BULLETIN their official Bulletin and to let us publish announcements concerning their meetings, news notes of members, etc. Nearly all of the societies in this territory are too small to publish Bulletins themselves because of the expense involved, and it is especially to these that the QUINCY MEDICAL BULLETIN wishes to extend a helping hand.

HAROLD SWANBERG, M. D.,
in *Quincy Medical Bulletin*.

PHYSICIANS OF THE SEVENTEENTH CENTURY BEFORE CHRIST STUDIED ANATOMY

Prof. James Henry Breasted of the University of Chicago in the Daily News, September 12, 1924, comments upon an ancient papyrus

he is translating written in seventeen hundred before Christ. The comment in the *News* is as follows:

The old idea that Egypt was exclusively a land of magic, mystery and superstition is dispelled by the discovery of a document showing that Egyptian physicians of the seventeenth century before Christ studied anatomy in the spirit of pure scientific research.

Upon an ancient papyrus now in America there was inscribed in the writing of ancient Egypt what Prof. James Henry Breasted of the University of Chicago has called "the oldest nucleus of really scientific medical knowledge in the world."

Prof. Breasted, who was recently associated with the late Lord Carnarvon in the excavation of the tomb of Tutankhamen, is making a complete translation of this important document which, although it has been in America for a number of years, has never been properly studied. The manuscript, known as the Edwin Smith papyrus, now in the possession of the New York Historical society, Prof. Breasted says "contains incomparably the most important body of medical knowledge which has survived to us from ancient Egypt, or, for that matter, from the ancient orient anywhere." From the style of writing he concludes that the manuscript dates from the seventeenth century before Christ, but it is obviously a copy of a work much older, possibly many centuries older, since some of its terms had become so obsolete as to require interpretation. Even as early as the twenty-eighth century medical books were numerous, for it is related that when the chief architect was showing off a new building to the Pharaoh he had a stroke, and the Pharaoh ordered the "case of writings" to be brought to see what could be done for the stricken minister.

FOUR IMPORTANT MANUSCRIPTS

There are four ancient Egyptian medical manuscripts of importance extant, two in Europe and two in America. The largest and most famous is that which goes by the name of Papyrus Ebers from Prof. Georg. Ebers of Leipzig, best known to the public from his historical novels, "An Egyptian Princess" and "Uarda." The National museum of Berlin owns a medical papyrus of the thirteenth century B. C. The University of California has the Hearst papyrus of much earlier date, the Edwin Smith manuscript, in the New York Historical society's museum, is probably the earliest, as it is undeniably the most scientific of the four.

The origin of this manuscript is unknown. It probably was buried in some tomb of the Theban cemetery, from which it was abstracted by an Egyptian seller of antiquities, who separated the perfect part of the roll, and having glued up the fragments to make a second roll, sold both rolls to Edwin Smith, an American amateur Egyptologist early in 1862. Mr. Smith soaked out the glue and pieced together the fragments. He knew how to read Egyptian, even the cursive or running hand of this scribe, and he recognized the value

of his find. After his death in 1906 the manuscript was given to the society by his daughter.

ABOUT FIFTEEN FEET IN LENGTH

The papyrus in its present state measures about fifteen feet in length but part of it is torn off so it may have been some ten feet longer. The writing is in columns a foot high and about the same width. It is done in a beautiful and regular hand, the Egyptian "hieratic," evidently the work of a skilled scribe, who was, however, unfamiliar with the scientific terms used, for he made many mistakes. Some of these he has carefully corrected, using red ink where the text is black and black where the word is in red.

The book constitutes a treatise on surgery and external medicine and deals with wounds, though one case is possibly cancer, which in later Egyptian documents is called "karkinoma," the origin of our word "cancer." The writer begins with the head and proceeds systematically downward, discussing in turn wounds of the nose, mandible, ears, lips, throat, neck, collar bone, thorax, and spine. It is a true "case book" beginning with the symptoms and proceeding to diagnosis. According to whether the prospect is favorable, doubtful or unfavorable, the physician then pronounces one of three verdicts: (1) "An ailment I will treat," or (2) "An ailment I will contend with," or (3) "An ailment I will not treat." The complete translation of one of the cases is given here to show the style.

TREATMENT SIMPLE AND SENSIBLE

The treatment prescribed is simple but generally sensible. The broken or dislocated bones are set. The flesh wounds are covered with an ointment of astringe herbs and honey. Where the case is clearly beyond his skill the physician wisely does nothing and advises that the patient be made as comfortable as possible and let alone. There is only one charm mentioned in the forty-eight cases.

In Case 7, dealing with fracture of the skull, the surgeon is advised: "You should have made for him a wooden brace padded with linen and have the head fastened to it. His treatment should be sitting, placed between two supports of brick, until you know whether he is making any progress."

In other cases, where the doctor is at loss what to do for the patient, he is advised to "moor him at his mooring stakes." This is apparently an old colloquial phrase which had, even in the seventeenth century B. C. when this manuscript was made, become almost as obscure as it is to us, for the scribe adds a note explaining that "moor him at his mooring stakes" means "put him on his accustomed food without giving him medical treatment."

For dislocated bones the directions are specific and show considerable knowledge of anatomy. In the case of a dislocated jaw the practitioner is told how to put his hands in order to force it back into place. For dislocated clavicle or scapula the patient is to be laid on his back and his arms spread out "in order to

stretch out the shoulder until the dislocation falls into place."

In this document occurs a reference to the word "brain" for the first time in any ancient record so far found. The word is unknown in Old Testament Hebrew, Babylonian or Assyrian. It is evident that more than 3,500 years ago, when all Europe was still in a state of savagery or barbarism, the Egyptian physicians not only knew the function of the brain but even had observed that the control of the limbs of the body was located in different sides of the brain.

KNEW OF BLOOD CIRCULATION

That these ancient Egyptians had some idea of the circulation of the blood appears from the following note: "There is in the heart a canal leading to every member of the body. If the physician places the fingers on the back of the head, on the hands, on the pulse, on the legs, he discovers the heart, for the heart leads to every member and it speaks (beats) in the canals of every member." But the actual course of the circulation of the blood was not cleared up until Dr. William Harvey worked it out in 1616.

In speaking of the collar bone, the writer says: "There are two canals under it: one on the right and one on the left of his neck. They lead to his lungs." From such references to the course of the blood vessels and to the shape and connections of the bones, it appears that the Egyptians practised dissection, to which the custom of embalming would naturally lead. Pliny says that the Egyptians carried on post mortem examinations to find out the cause of death.

Case No. 28 deals with "a man having a gaping wound in his throat, penetrating to his gullet; if he drinks water it turns aside, issuing from the mouth of his wound, and he is very hot and develops fever from it."

Case 8 is defined as "a fracture of the shell of the skull, the flesh of the head being whole." In the case of a gash in the eyebrow, he is to make two bandages of linen and "let them be applied on the two lips of the gaping wound, in order to cause the one to join to the other."

BUILDING ACCIDENTS COMMON

In handling great blocks of stone for pyramids and temples by man power alone, accidents must have been common and this supposition is confirmed by the examination of the cemeteries. In a single excavation campaign, where five or six thousand bodies were exhumed, one out of every thirty-two was found to have a fractured bone. Such an accident in the construction of Egyptian skyscrapers may have been the cause of Case 33, where the patient is found deaf and speechless and without control of arms and legs. The physician diagnoses it as "a crushing of the vertebra of the neck" and explains it as meaning that "one vertebra of his neck has been depressed into the next, one penetrating the other and not assuming any carrying (of the weight above)," and adds that the man "had fallen head downward on his head, driving one vertebra of his neck into the next." The physician pronounces

the case incurable and suggests no treatment. From the neck the treatise passes down the spine and begins to discuss dislocations of the vertebrae of the back. In the first case under this section, No. 48, the patient suffers pain in moving his legs. The practitioner is instructed: "He should place him prostrate and make for him—" But what was to be done for the man with the bad backbone we shall never know for here comes a break like those we meet with now when we read in a magazine "she began to weep and (continued on page 135)." The scribe was interrupted in the middle of the sentence and did not resume his copying. The rest of the papyrus is blank and when we turn over the sheet we find the back of the papyrus filled with very different stuff, the magical bosh that makes up most of the medical manuscripts of old Egypt.

The first writing on the back begins with an "incantation for the driving out of the wind of the year of the pest." This is followed by three recipes for female troubles, and then a new hand scribe starts in with: "The Beginning of the Book of Transforming an Old Man into a Youth of Twenty." After running for a column and a half this also breaks off abruptly, so we are unable to add anything from Egyptian lore to meet the present demand for methods of rejuvenation. This prescription for the elixir of youth calls for some sort of an ointment which has to be kept in a vase carved out of precious stone, which doubtless cost "the old man" a pretty penny.

PROF. BREASTED'S OPINION

The Smith manuscript will compel a revision of the ideas that formerly prevailed, that the traditional "wisdom of the Egyptians" was confined to magic and the practical arts. Prof. Breasted frankly admits that he has had to change his opinion on this point and he concludes:

"The author of the great Book of Surgery and External Medicine, of which we have a mere fragment on the front of the Edwin Smith roll, was one of a group of men who—had learned that in surgery and medicine they were confronted by a great body of observable phenomena, which they systematically and scientifically collected, sometimes out of interest in the salvation of the patient, sometimes out of interest in pure truth. The class of men thus revealed to us are the earliest natural scientists of whom we know nothing, who, confronting a world of objective phenomena, made and organized their observations and based inductive conclusions upon bodies of observed fact. It is important to emphasize here the fact that these men evidently practiced dissection of the human body, a method of investigation in which Greek medicine, 1,500 years later, was noticeably weak."

The following translation illustrates the general style of the unique manuscript:

Translation of Case 13.

Title: Directions for a wound in the temple.

Examination: If you examine a man having a wound in his temple, when it has no gash, while this wound

penetrates to the bone, you should probe his wound and if you find his gema (tempora bone) whole without a fracture herein.

Diagnosis: You should say concerning him: "He is a sufferer with a wound in his temple."

Verdict: It is an ailment which I will treat.

Treatment: You should bind it with fresh meat the first day, and treat it afterwards with ointment and honey every day until he is comfortable.

Note A: With regard to "a wound when it has no gash, while it penetrates to the bone"—it is a small wound extending to the bone, there being no gash in the wound. It means narrow, the wound not having two lips.

Note B: With regard to; "his gema"—it is the region between the orbit of the eye and the orifice of the ear at the back of the jaw.

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OUR CONVENTION CITY

The Medical Parasite: Who Is He?

The big, basic idea of "take and give" enters not into the parasitic life led by too many members of our altruistic profession. The true parasite takes all, gives nothing in return. So it is with the medical parasite: he sucks the lifeblood from the vast storehouse of knowledge treasured in current literature and in textbooks. He enjoys all the rights and privileges of organized medicine. In every worldly sense he walks the path of velvet. But the medical parasite makes no return to his profession whence these blessings flow. He tacitly recognizes the power, the worth and prestige of medical organization. He pays tribute to Esculapius and is even on the roll of local and state societies. But his is a passive membership. He spins in the web of his fancy the excuse that he is too busy to attend meetings; or he pours the flattering unction to his soul that such attendance would be a waste of time. Why go hear rehearsed platitudes and listen to the recitation of a whole rosary of empty phrases? This is the Pharasaical conceit of "I know more than thou."

Nevertheless, to save us from a deadening intellectual inertia the quickening work of medical societies must go on. The medical parasite fails to realize that in order to get his mental pabulum some must write and read papers for him. Some must discuss them, but all must catch the finer spirit and the lofty purpose of such meetings. The parasite, forgetting the high ideals of our calling, is satisfied to live from the other fellow's lifeblood and sweat, through the medical journal.

Remember, he is not a slouch. He is self-satisfied. He is successful, but not venal. In fact, he may be the very personification of the good Samaritan. Success alone should make him grateful and inspire the desire to offer something from his personal experience. All of us cannot blaze new pathways. But even as trailers along the beaten path, our daily contact with the protean forms of disease gives the ever present opportunity

of registering a new observation, or lighting on some new surgical, or some new therapeutic wrinkle. No one is so poor in experience, or so barnacled in ignorance that he cannot add his humble mite to the sum total of medical knowledge. Medical progress depends upon these individual accretions.

The parasite's impuissance in doing this is sheer callousness and supreme indifference. Is it an overpowering timidity in self expression? Then one can escape the reproach of parasitism by mere attendance of meetings. This in a way is a silent contribution of good will and encouragement to the active workers.

Shade of Esculapius! They need to be encouraged lest they falter. They need to gird their loins, these torch bearers, so that when they are brought face to face with seemingly insuperable obstacles they will be spurred on to carry the light still farther.

Gentle reader, the day for the conversion of the medical parasite is at hand. We are on the eve of our Annual Southern Medical Association Meeting. Make it memorable by bringing one convert with you to the Crescent City, November 24-27, and there shall be great rejoicing "over the return of the sheep that had gone astray."

HOMER DUPUY, M. D.,
General Chairman,

Committee on Arrangements.

New Orleans, La., Sept. 13, 1924.

—From *October Southern Medical Journal*.

URGE PHYSICIANS AND PHARMACISTS TO COOPERATE

The following paragraphs occur in a recent bulletin of the Washington State Pharmaceutical Association. They are interesting as showing the attitude of the pharmacists of the state toward the medical practitioner, and the evident desire of the officers of the organization to seek more educational contact with the public.

"There is need for publicity of the right kind in the medical as well as in the pharmaceutical profession. Both have suffered from unfair criticism, as well as unjust legislation. We have all been too much like the ostrich with his head in the sand. We have good professions, but have been too busy with our work, or else too ethical, to tell the public about them. There is no need for all of this mystery in connection with medicine. This attitude of mystery and secrecy is responsible for most of the fakes and many of the 'pathies' and 'isms' that have made such inroads on our profession. The fakirs have prospered while we have silently plodded.

"The relations between the doctor and druggist should be more intimate and more tolerant. Both have their troubles, and each should make an effort to protect the other from unjust criticism. When an individual in either profession is discredited, it is a reflection on the entire field of medicine. The druggist should never attempt to suggest to a friend the fee that the doctor should charge; likewise, the physician should not assume to know the cost of a prescription.

Neither is in a position to estimate the fees of the other. The druggist is not qualified to prescribe, nor is the doctor competent to dispense. The training and qualifications of each has prepared them to assume different obligations, and for that reason they should respect the responsibilities of each other."

THE FAILURE OF ABORTIVE TREATMENT OF SYPHILIS

Prof. E. Meirwosky and L. Leven

"Munch. med. Wochenschr." 1920, p. 36

The author reports six cases where abortive treatment of syphilis failed, although such treatment was said to be intensive enough and initiated in good time. The first received ten doses of 0.3 gm. of sodium arsphenamine. After three weeks a reinduration of the chancre occurred. The second received in addition to injections eight doses of neoarsphenamine, altogether 3.15 gm. given during six weeks. After six weeks the Wassermann again became positive. The third—8 doses of 0.45 neoarsphenamine plus rubbing. After seven months an additional course was given: 4 weeks of rubbing and six doses of 0.3 neoarsphenamine. Yet within a month large patches appeared. The fourth patient—five weeks of rubbing and seven doses of 0.45 gm. neoarsphenamine. In a few months there was a neurorecurrence. The fifth—five doses of neoarsphenamine. In a few months there was a neurorecurrence although the Wassermann remained negative. The sixth—eight doses of neoarsphenamine and ten doses of novasurol (organic mercury compound). Within three weeks there was a neurorecurrence.

The authors drew the following conclusions:

1. The idea of abortive cure in seronegative primary lues should be abandoned. Patients at this stage of the disease cannot be cured with a few injections or with one course. Repeated courses are absolutely essential.

2. The division of primary lues into periods of negative Wassermann and positive Wassermann is of no value either practically or theoretically.

3. The generalization of the virus, contrary to the general view, is bound neither with the positive Wassermann reaction nor with the so-called secondary stage. There is only one stage of lues.

4. Since syphilis may continue to exist even in the absence of a biological reaction in the blood or spinal fluid, we have no sure sign of the success of our treatment. It is only after years that it becomes possible to judge whether the patient is safe against relapses.

ABORTIVE TREATMENT OF SYPHILIS

Meirowsky and Leven

(Munchner Med. Woch., V. 68, p. 106, 1921)

In this article, Meirowsky and Leven continue to discuss abortive treatment. They state that first, there is no unanimity among advocates of the abortive method as to the proper time when treatment should be instituted in order to achieve success. Zieler³³ gives it 3 to 4 weeks, and Zimmern³³ even 6 weeks after infec-

tion. Second, still more varied are the opinions as to the intensity of treatment. F. Lesser³⁴ gives 2 to 3 injections of nearsphenamine in doses of 0.6 gram during 8 days; Zieler gives 6 to 8 injections in 4 to 5 day intervals and after 3 to 4 weeks additional 4 to 6 injections, to make cure a certainty. Pulvermacher³⁵ administers 14 injections totaling 5 gm. for men and 4 gm. for women besides one or two additional courses. Thus each has his own method of procedure. Third, not all syphilologists advocating abortive treatment take into account the possibility of the appearance of a temporary positive Wassermann during treatment.

The main point at issue according to the authors is not in the "oscillation"* as such nor in the fact that such cases should not be treated as abortive. They wish to point out the uncertainty of the prognostic value of Wassermann test. We know now that even in the negative stage of primary syphilis the spirochetes may be spread in the internal organs, so that a negative biological reaction is no indication that the syphilitic infection has been extinguished. Reinfection alone can be considered as proof positive of successful abortive treatment. And since such cases of reinfection exist we may conclude that abortive treatment is capable, in many cases, of bringing about complete extinction of syphilis. No one, however, is in a position to say with authority that a given case is or is not cured.

"Since it is our aim to give the patient the best prospects of cure, we decline to extend abortive treatment with one course and prescribe, instead, two or three courses regardless whether the Wassermann is positive or negative. This we consider the true method of 'early treatment' of syphilis."

SEROLOGIC AND CLINICAL OBSERVATIONS IN THE PRIMARY STAGE OF SYPHILIS

By Gross

(Archiv fur Dermatologie und Syphilologie, V. 136, 1921)

There are patients in whom the Wassermann reaction, negative before treatment, turns positive during antisyphilitic treatment even with arsphenamine. Such "oscillation," however, is only transitory.

Whether this positive reaction is provoked by the therapy or whether it merely represents the normal course of the immunological reaction is a question the author attempts to solve on the basis of his cases. This phenomenon occurs in spite of the arsphenamine administration and not because of it. As Wassermann and Lesser think the Wassermann reaction is a function of the host and is only indirectly produced by the arsphenamine and by the destruction of the spirochetes. The reaction, once provoked, continues its course. And it is not till some time after the first arsphenamine injection, which kills all or most of the spirochetes, that its effect becomes manifest either in the disappearance of the positive Wassermann or in its never becoming positive.

The latter alternative is possible only when arsphenamine therapy is instituted early and intensively. If the disease, for instance, tends to produce a positive reaction about the thirtieth day after infection, the

reaction will occur on this day even though arsphenamine has been given on the 29th, 28th, 27th, 26th or 25th day. But no positive reaction will appear if the injection is administered about the 23rd day after infection. This positive "oscillation" (the name given by the German syphilologists to the phenomenon which consists of the appearance of a temporary positive Wassermann in a primary seronegative case) under arsphenamine treatment appears at the same time when the serum reaction usually becomes positive in non-treated cases.

From the above it may be concluded that intensive therapeutic treatment should be instituted as early as the third or fourth week after infection in order to prevent the appearance of a positive Wassermann.

CONDITIONS PERMITTING THE ABORTION OF SYPHILIS

By Levy, Berg and Gerbay

("La Medecine" V. 2, p. 130, 1920-1921)

Patients with newly acquired syphilis pass through a critical period when the Wassermann changes from negative to positive, provided no treatment has interfered. Should treatment be instituted after this critical date, the serum reaction might take longer in turning positive, but positive it will become. If, on the other hand, treatment begins earlier, the Wassermann reaction is weakened and may remain negative or become only slightly positive. There is also a period during which the Wassermann reaction in the serum may be positive, doubtful or negative. The period lasts eight days, occurring between the 37th and 45th day after infection. Before this date reactions in all cases will be negative, after it, positive.

Arsenical treatment extended to patients with the primary lesion can extinguish the infection if instituted prior to the 38th day of inoculation.

THE WASSERMAN TEST AS A CRITERION OF CURE FOR SYPHILIS

[From the Evans Memorial and Boston University School of Medicine]

DAVID L. BELDING, M.D., BOSTON

The Wasserman test has become so strongly entrenched in medical thought as the sole guide for the treatment of syphilis that a reminder that the reaction signifies only an immunological response on the part of the patient, variable in strength and nonspecific in character, may not be out of place. It seems wise to consider more fully the relation of this reaction of the blood serum to treated and untreated syphilis before accepting it unreservedly as a criterion of cure.

Syphilitic Cure.—From Wassermann surveys and other evidence it appears that about 9 per cent. of the adult population has syphilis in some form, the percentage naturally varying with social classes, sections of the country, and race and nationality. A relatively small proportion of this large number die from recognized syphilis, which in 1920 constituted 1.3 per cent. of the general death rate and 2.3 per cent. of the rate between the ages of 24 and 64. The percentage method of Osler, as applied to the mortality statistics for 1920

*See articles on oscillation by Gross and Martin.

for persons over one year old, shows syphilis as a factor in 6 per cent. Autopsy findings indicate an even greater prevalence of the disease. Statistics show that although the proportion of syphilitics among hospital patients is twice that in the normal population, in reality less than 1 per cent. of the entire population of the United States receive hospital care directly because of syphilis. From these statistical impressions it is evident that an appreciable number of syphilitics acquire naturally a complete or partial immunity, which, if not entirely eradicating the disease, at least keeps it in a state of inactivity. Patients may have old anatomical lesions, occasionally given a positive luetin or possibly a positive Wassermann test, and yet the disease may have reached a state of temporary cure, while in a still smaller number any or all of these signs may have disappeared.

Early cases of syphilis, because of the possibility of sterilization, and old syphilitics with active lesions, which indicate the inability of natural resistance to cope with the infective process, require treatment. The term "treatment" as used in this paper is limited to drug therapy. Some latent cases need treatment, others do not; but physicians are not yet competent to decide which may safely be left untreated. Treated cases comprise three classes: (1) those who recover naturally without or in spite of treatment, (2) those who respond to treatment, and (3) a small number who in spite of thorough treatment because of low resistance or susceptibility succumb to the disease. Sterilization by means of treponemicidal chemico-therapy appears most effective in early syphilis. In late syphilis the healing of the pathological lesions and the reduction of the disease to an inactive state are the most that can be expected.

A comprehensive definition should include cure through the natural defensive mechanism of the patient and through drug therapy. So indefinite and complex a subject defies limitation within the narrow scope of any arbitrary rules; yet for a working basis it is necessary to formulate certain principles. Permanent cure can be obtained only by the eradication of the treponema from the body. All other cures, natural or artificial, while practically permanent, necessarily must be temporary, inasmuch as a potential focus of infections, as in tuberculosis, may remain. A temporary cure demands: (1) the elimination of all active symptoms or lesions, (2) the healing in so far as possible of old anatomical lesions, and (3) the reduction of the disease to a latent condition through the immunity of the patient or the loss of virulence of the infecting organism.

THE WASSERMANN REACTION IN UNTREATED SYPHILIS

The Wassermann test is a laboratory procedure for the detection of certain substances, collectively designated for convenience the Wasserman antibody, which have been produced by an immunological reaction to syphilis on the part of the patient. Although practi-

cally diagnostic of the disease the reaction is not strictly specific since the antigen used for the detection of the Wassermann antibody, unlike bacterial antigens, is not directly connected with the causative organism. The nonspecificity of the antigen permits the occasional occurrence of nonsyphilitic fixation, and to some extent discredits the reliability of the test, although, except in febrile, toxic or pregnant patients and those with spirochaetal diseases, the possibility is most remote. The reaction, which depends upon the presence of the Wassermann antibody and the delicacy of the mechanism of detection, varies with the laboratory technique, the stage of the disease and the individual response of the patient.

Laboratory Variation.—Technical difficulties prevent absolute certainty in detecting the Wassermann antibody. Miscellaneous antigens of low potency, careless technique, incorrect determination of the fixing unit of complement and an arbitrary standard of serum volume explain many negative reactions in clinical syphilitics. Statistics merely indicate the present or absence of detectable quantities of antibody in 0.2 c.c. of serum (original Wasserman volume) subject to these technical variations. More exact information may be obtained by using increased amounts of serum for the detection of small quantities of antibody and by measuring the strength of the positive reactions. The measurements in this paper are expressed in arbitrary units according to the titration of serum, complete fixation with 0.2 c.c. having the value of 4. On this basis, fixation with 0.1 c.c. would have a value of 8, 0.05 c.c. 16, etc. Laboratory variation may be demonstrated by comparing the results of two large laboratories with a preserved serum of 32 unit strength over a period of several months. For the most part uniform results were obtained, but at times wide discrepancies were observed. On one day the first laboratory might obtain a value of 8 and the second 32 or 64, and on another these figures would be reversed. The daily variation in the fixing unit of complement appears to be the most prominent factor in the production of this condition and in itself is sufficient to explain discrepancies in reports on weakly positive sera.

Clinical Syphilis.—The accompanying table shows the percentage of positive tests, as compiled by Craig,¹ and the average strength of the Wassermann antibody² in various stages of syphilis. In general the two follow a parallel course roughly comparable, except in neurosyphilis, to the clinical progress of the disease. During the very early stages the Wassermann antibody is absent or weak, rapidly increasing in strength until it reaches a maximum during the late secondary or early active tertiary stages and then gradually falling as the disease becomes quiescent. Owing to the impossibility of detecting all the so-called naturally cured cases, the relative frequency of positive reactions cannot be determined; but in those cases which occasionally come to light the reaction as a rule is weak.

WASSERMANN REACTION IN CLINICAL SYPHILIS

Stage of Syphilis	Per cent Positive	Average Strength of Wassermann Antibody in Units
Late Primary	89.8	14
Secondary	96.1	23
Tertiary:		
Active		30
Inactive		11
Total	87.4	20
Neuro	68.1	12
Latent	68.1	7
Congenital	82.2	46

Individual Variation.—The greatest source of variation in the production of the Wassermann antibody is the individual. The relation of this antibody to his resistance, or to the severity of the disease, is problematical, although the active disease apparently calls forth a stronger reaction than the latent. Changes from a strong positive to a negative sometimes unexpectedly occur with or without treatment, and are entirely different from the daily fluctuations reported by certain observers, which are chiefly due to technical causes. A negative reaction is not infrequently found in clinical syphilis and commonly in patients with a definite history of syphilis of several years standing but without evidence of active lesions. These so-called negative patients fall into two classes: (1) those who give a positive reaction on repeated tests with two or four times the usual volume of serum, and (2) those who show no detectable antibody with such repeated tests even when allowance is made for natural anti-sheep hemolysin. The majority fall within the first group and comprise old patients in whom the Wassermann antibody has become so weak that it cannot be detected by the ordinary test.

THE WASSERMANN REACTION IN TREATED SYPHILIS

In untreated syphilis the Wassermann reaction is subject to two variables, the response of the patient and the course of the infection. Treatment produces additional complications, since the effect of the drug on the disease, on the individual patient, and on the antibody, has to be considered. Particularly when several drugs are used the problem becomes so perplexing that only the effect and not the mechanism of production can be determined. Results indicate that in the average case treatment tends to produce a negative reaction as well as clinical improvement, but that the two do not always coincide, the reaction in many old syphilitics persisting for a variable time after the disappearance of clinical symptoms. Furthermore, the result depends upon the type of antisiphilic drug, the stage of the disease and the response of the individual patient to treatment.

Drug Therapy.—Arsphenamine produces a reduction of the Wassermann antibody, which so far as can be determined is permanent in the average case. The immediate reduction depends upon the dose, rate of

administration and individual response of the patient, its permanence upon the exacerbations of the disease. The reduction does not entirely depend upon the amount or length of treatment. It does not always occur coincidentally with the decline of the clinical symptoms and at times reaches its minimum one to two months after treatment.

The various compounds of mercury differ little in serological effect, provided that the patient is carried to the point of physiological toleration. At least 1 mgm. of metallic mercury per kilogram of body weight per week is necessary to reduce materially the reaction in old syphilitics. The reaction falls during treatment, reaches its minimum at the close and shows a characteristic partial recovery during the next few months.

Stage of the Disease.—In early syphilis the reduction of the Wassermann antibody is readily produced, but its disappearance is not synonymous with the elimination of the treponema from the body. In late syphilis, in spite of a lower antibody content of the blood serum, the reduction of the strength of the reaction and the production of a negative are more difficult and require more treatment.

Individual Response.—Some patients tolerate an appreciable quantity of arsphenamine or mercury, others are sensitive to one or both drugs. This intolerance is unfortunate since the average patient requires appreciable doses to reduce the Wassermann antibody. Some patients require little treatment to attain temporary cure and a negative reaction, while others in spite of thorough treatment show partial or no reduction in antibody titre. Still others may show clinical improvement and no corresponding change in the Wassermann antibody.

THE CRITERION OF CURE

The Wassermann reaction in both treated and untreated syphilis represents an immunological response on the part of the patient, which is distinct from the clinical course of the disease. In the average case clinical syphilis and the reaction run a parallel course, but in the individual patient the reaction may or may not be comparable to the clinical findings. Although an index of the response of the patient it furnishes no absolute measurement of his resistance or of the activity of the disease. Provided allowance is made for the unsatisfactory negative, the reaction of the blood serum is of value for diagnosis but as a criterion of cure it has limitations.

Negative Reactions.—As untreated syphilis becomes chronic or quiescent, the Wassermann reaction tends to become negative. Treatment accelerates this process. The Wassermann test is not sufficiently delicate to show the complete elimination of the antibody from the blood serum and only furnishes evidence that it has fallen below a certain standard. In early syphilis treatment rapidly reduces the antibody below this figure, but many instances of the recurrence of clinical syphilis in insufficiently treated cases testify that such a negative is not a proof of cure. Likewise, clinical syphilis is not uncommon in patients with negative reactions. The use of increased amounts of serum in the test, if properly controlled, will reduce materially

¹ Craig, C. F., *The Wassermann Test*, 1921, p. 159, C. V. Mosby Co., St. Louis.

² Our preliminary measurements with cholesterolized antigens and water bath fixation.

the number of pseudonegatives, but even this refinement will not permit the test to serve as a criterion of cure.

Positive Reactions.—The ordinary Wassermann test, which merely records the narrow range between a strongly positive and a negative reaction, is less satisfactory than the quantitative test, which gives the titrated strength of the antibody. In untreated cases this additional information may be of prognostic value and a high titre antibody in old syphilitics may indicate an unsuspected visceral or vascular involvement. In treated cases it is an index of the earliest serological response to treatment and as such serves as a guide for drug therapy.

Not infrequently patients in spite of thorough and prolonged treatment maintain a persistent positive reaction. The Wassermann-fast patient under treatment either shows no change in the strength of the reaction or gives a partial reduction, which never reaches a negative. Certain patients who are resistant to one drug may yield a negative reaction when treated with another, others seem resistant to all forms of medication. Patients with visceral and vascular syphilis are particularly resistant to treatment. The average patient with a persistent positive reaction is more likely to have an unsuspected focus of infection or show a recurrence of the disease than one with a negative reaction. However, in certain patients a persistent positive may not indicate prolonged treatment, particularly since theoretically it is possible for the reaction to persist after the disease has reached the quiescent state of temporary cure.

In connection with negative clinical findings and thorough treatment a negative Wassermann reaction is of corroborative value in determining temporary cure. By itself the negative reaction does not indicate the cessation of treatment and a persistent positive may not always call for further treatment. The quantitative positive reaction is a valuable guide to drug therapy and an aid in diagnosis, but the Wassermann reaction of the blood serum is not a criterion of cure for syphilis and in this respect is inferior to a complete serological examination of the blood and spinal fluid.

NECROLAGNY AS A PHASE OF MENTALITY

James G. Kiernan, M.D., in *Urologic and Cutaneous Review*, January, 1923, says:

Under the title necrophilia, a group of mental phenomena has long known and regarded as an imperative impulse or "mania." The term, which meant "love of the dead," was used merely to designate the psychology of persons who violated corpses. From the bizarre belief which underlay the mental state many jurists regarded the subjects as insane and irresponsible. Because of certain acts associated with the tendency to violation, W. A. F. Browne (1) regarded the mental state as an atavistic one. Many subjects, however, had full power to control their actions and their excitability although death and funeral ceremonies caused erethism. No mere bizarre belief can, under the just rule of responsibility, power to refrain, not knowledge—constitute evidence of irresponsibility. A

preferable term to necrophilia, because it involved more of the psychologic state was necrolagny (sex excitement or satisfaction from the dead). The term was more descriptive forensically and clinically of the mental state. It took in the excitability and erethism which necrophilia did not. Popularly necrophilia is regarded from its bizarre actions as a form of insanity. Belief in sex excitement from association with the dead was well illustrated in a legal case which occurred in Chicago some years ago. A policeman was tried on the charge of rape before a police trial-board. As the case was a civil one involving dismissal from the force for conduct unbecoming a policeman, his wife was permitted to testify in his behalf. She claimed that her husband's mind had been unbalanced by the sight of dead bodies taken from the overturned Steamer Eastland where he was detailed to special duty (2). To people, generally, sexual excitement under such circumstances would seem abnormal and hence evidence of insanity. The trial board disregarded the plea (3) chiefly because the wife urged it on the alleged victim of rape as a plea for leniency. The issue of self-control was not made, as the testimony was chiefly as to the existence of erethism.

Sexual excitement from death and the trappings of woe has long been recognized. "Even so depressing an emotion as grief may act as a sexual stimulant" (4). In the disturbances of the emotional balance by grief or death, primitive instincts have a peculiar tendency to rise beyond the threshold of consciousness and in the abulia (will unbalanced) of grief the mind is liable to become the prey of erethism or obsessions (5).

The *Satyricon* (6) bears testimony to popular Roman belief in erethism of funeral aids and hangers-on of tombs. This was satisfied by a class of prostitutes called the *Busturiae* who were frequenters of tombs and hangers-on of funerals.

Bronardel reports the case of a physician unable to attend funerals of friends because of excessive sexual excitement on such occasions. (7). The case has been reported of an English lady who fell in love with an undertaker at her father's funeral and insisted on marrying him. Her belief was that the impulse was irresistible whence the determination on marriage.

Persons have been so excited by death and the trappings of woe, that only under these circumstances, have they been able to effect coitus (4). "Funerals, tragedies of the theatres, pictures of martyrdom, scenes of execution, trials in the law courts, etc., are," according to Schlichtegroll (8), "to be grouped together as arousers of sexual pleasure especially in women." The stimulating effect of funerals has been referred to by Leigh Hunt (9), who describes this effect in the devoted friends who cremated Shelley (9).

The lykewakes of the Goths and Saxons and the wakes of the Celts have here their psychologic basis (4). Enjoyment probably comes as a reaction from the fear of the dead to whom respect was shown by the funeral feast. Here is the working of the principles outlined by Crawley (10) that at such feasts there is a desire for union among the survivors and a desire for new strength and life prompted by the sad

example of the deceased. These impulses are satisfied by eating together, exchanging gifts and similar acts of union such as coitus. Among certain races ceremonial coitus takes place after the feast.

Whether grief or death acts as a stimulus or abolishes or fatigues inhibitions is a question which requires solution. Probably both factors are, at times, in operation. Production of abulia allows the sex stimulus to rise beyond the threshold of consciousness to dominate or even become an obsession. "The stimulus in a state of repose which appears painful," according to Féré (11), "loses that painful character either partially or completely when acting on the same subject in a more or less fatigued state." Bronardel (12) for example had to stop people masturbating at the Paris morgue in presence of the dead. Desire for masturbation overcame modesty, reverence for the dead and terror. Here was illustrated the psychologic law pointed out by Féré (11) that "a painful stimulus is a strong excitation which causes displays of energy that the will cannot utilize; when, as a result of diminished sensibility, the excitants are attenuated, the will can utilize them and there is no pain."

There are mental states wherein people find a fearsome beauty in the dead where the aesthetic element dominates the sexual and keeps it in the background. Of this Mrs. Havelock Ellis (13) draws the following picture: A man after a long period in which he saves many lives from the sea and finds many drowned bodies, finally strangles his wife. The psychic evolution leading to the strangulation appears in "The Idealist." The wife, who has evidently long pondered over her husband's peculiarities, opens a conversation with the remark: "What would you do if your husband were fanciful over corpses? I have tried to find out in books something as will clear it up, but I never come on the likes of he. He told me once he had married me because I was the only woman he had ever met with an eye like a corpse. He always makes out that there's a perfume around about me as 'minds him of funerals and death chambers. Even flowers he don't lean to till they be failing. I reckon it is all in his makeup afore he was born and perhaps he's not responsible. As a youngster . . . he made more than usual practice of getting to see any corpse in the village and even dead dogs and cats were more playthings to him than tops . . . and such like. His mother must have been terrified of anything to do with death all her life. When . . . his aunt drowned herself . . . the sight of her dead face never left the mother and she declared always that he had a look of her. . . . I took fear of him at last and lately I have often thought it would be best to be dead and safe. He'd care more then, too." The boy wanted to be an undertaker but his father hammered it out of him. His father said he had better be a hangman but the boy cried and said he'd as soon be hanged as hang anyone. He had a hatred for slaughter houses and was a vegetarian. His courtship was carried on without kissing or physical demonstrations. While the picture is that of a sentimental nature with a tendency to mysticism which endows the

dead with a kind of life of their own, it shows no loss of self-control.

Necrolagny here seems akin to iconolagny or pygmalionism (sex excitement or satisfaction from pictured or sculptured images). A phase of necrolagnic iconolagny was found in Charles V of Germany and his Spanish descendants who delighted in placing themselves in adorned shrouds and lying in coffins. This was a mixture of religiosity and necrolagnic iconolagnism. They were very particular about the adornment of the shrouds. At times funeral ceremonies were held over them. A case reported some years ago was that of a necrolagnic photograph (14). A woman had been an artist's model. A man at the instance of medical students who wanted freak photographs induced her to pose as the "consort of death" holding a skeleton. He afterwards hired a room in an anatomical company's studio. This she was induced to enter blindfolded and was laid on a slab. Corpses were grouped around her. One was gazing in her face. Another was caressing her foot with its hand. With the flashlight she opened her eyes and found herself staring at a corpse.

The torturing of artistic models by Parrhasius and Giotto seems to align necrolagny and iconolagny, although the torture was done simply to secure figures for the painters. In a collection of stories Ted Robins tells of "the happy family" where a Parisian sculptor murders his landlady, her daughter (whom he has married) and two children to form a group encased in marble. Robins' "For Art's Sake" pictures an artist who kills in a cruel manner several persons that he may commit their dying agonies to canvas. These artists are not irresponsible but so carried away by necrolagnic aestheticism as to be heedless of the consequence of their acts (15). A vivid picture of necrolagny is that of the Ephesian matron (16). Here a woman fasts and weeps over her dead husband for a week in a tomb. A soldier seeing a light in the tomb first induced her to eat and then led her to indulge in coitus after satisfying her hunger. The soldier was watching crucified bodies. During his absence friends of the crucified took a body from the cross whereupon the lady helped to replace the body by that of the husband. This story, as Edmund Griesbach (17) has shown, has many antetypes in European, Indian and Chinese literature and folklore. "It is not probable," Havelock Ellis remarks, "that all stories of this type are actually related; in any case it would seem their vitality is due to the fact that they have been found to show real correspondence to life." Direct violation of the dead is very vividly pictured by Herodotus (18) who describes a case where an Egyptian violated the corpse of a woman. Sergeant Bertrand, the classic example of necrolagny, began masturbating at nine years of age, stimulating the sexual excitement, which may have been congenitally feeble, by accompanying thoughts of ill-treating women. It was not till subsequently that he began to imagine the women were corpses. There is a phase of fetishism in this masturbation attitude of Sergeant Bertrand. Erotic fetishism is the term applied by Binet (20) to objects which

have an erotic influence as nearly symbolic as the fetich, charm or mascot of primitive man or the dolls of children. There is in pure erotic fetichism an expression of perverted association where evolution is reversed with return to the incoherent homogenous from the complex coherent heterogenous. "Normal love," says Ludwig Brunn (21), "is a symphony of tones of all kinds, results from various stimuli. Fetichism appreciates the tone of but a single instrument and results but from one stimulus." Fetichism may be a predominant note in normal sexual desire, in auto-erotism of the Narcissian type, in inverted desire, or may be an expression of algolagny. Algolagny varies from symbolic expressions to lust murders either of homosexual or heterosexual type. Where there is dread of law or sufficient moral resistance the acts are merely symbolic. A step lower in evolution and sprinkling of clothing with defiling or destructive fluid results. In a still lower phase clipping of hair has a symbolic fetichic effect. All these acts are symbolically done in brothels. This may lead to lust murders as in a case of Taxil (22). Here a priest developed finally into a state where he had, in a brothel, a prostitute chalked to resemble a corpse and placed in a catafalque in a room hung with black. He then recited the offices of the dead and copulated. He later made an attempt at lust murder on a little girl. Search of his rooms revealed clippings of hair of little girls, women and the pseudo-corpses with labels and dates attached. The clippings of the pseudo-corpses were the latest. Aside from the sex tendencies no evidence of mental abnormality existed. Religiosity cropped up in the symbolic ceremonies in the brothel.

There are generalized types of necrolagny ranging from the innocent erethism through the erethistic to the sadistic and iconolagnic necrolagny. The sexual impulse is often an offshoot of the nutritive, hence it is not astonishing that necrolagny may be accompanied by cannibalism. Community with the dead is most easily reached and the identity of eating a dead person and eating with him is most easily shown by practices where mourners drink the fluids of the body and eat the flesh (10). To some extents the conception of mediaeval vampirism had behind it popular belief based on necrolagny. Vampirism like that of the ghouls of the Arabian Nights who devour corpses must therefore be considered as an atavism and not as an irresistible impulse. Necrosadism is at times a violation of corpses attended by the idea that the person violating the corpse was so defiling it. The mental state is depicted by Zola in the death attendant of "L'Assomir." It has cropped up in attendants on morgues as in "dead John" of Bellevue Hospital. This differs from the mental state where the violator sees a certain beauty arising from death in the dead body. There is an element of error in the statement of Havelock Ellis that there is usually no true sadism either in necrosadism or necrophily. The sadism turns on the motive with which the subject violates or mutilates the dead. Cases occur where the condition proceeds from sexual exhaustion from coitus or masturbation excess, through dress despoiling, picture

slashing or porcelain smashing through flagellation and necrolagny to necrosadism, lust murders and cannibalism. There is a necrolagnic fetichism which shows itself in the collection of beautiful heads of children of both sexes made by Giles de Retz. In this has been imitated by many necrolagnists like Bola Kiss of Hungary and by an Egyptian. Women have been enticed into a house, robbed of their jewels and then murdered (afterwards their bodies were all burned but the heads, twenty of which were found in the house). While robbery might in this account for the murders it would not for the preservation of the heads.

REFERENCES

1. *Journal of ental Science*, January, 1875.
 2. UROLOGIC AND CUTANEOUS REVIEW, November, 1915.
 3. Chicago Police Department vs. Cleary.
 4. *Psychology of Sex*, Vol. III., p. 180.
 5. *Alienist and Neurologist*, 1891.
 6. "The Satyricon," Firebaugh's Translation.
 7. *Journal de Médecine de Paris*, 1886.
 8. Sacher Massoch and Masochism.
 9. Autobiography.
 10. Mystic Rose.
 11. *Travail et Plaisir*.
 12. *Journal de Médecine de Paris*, 1886.
 13. The Imperishable Wing.
 14. UROLOGIC AND CUTANEOUS REVIEW, June, 1920.
 15. UROLOGIC AND CUTANEOUS REVIEW, February, 1922.
 16. Satyricon. Firebaugh's Translation.
 17. "Die treulose Witwe."
 18. Book I.
 19. Lunier. *Annales Medio-Psychologiques*, 1849.
 20. *La Prostitution Contemporaine*.
 21. *Etudes de la Psychologie Experimentale*.
 22. *Deutsche Montagschrift*, August 20, 1888.
 24. UROLOGIC AND CUTANEOUS REVIEW, June, 1920.
- The Urologic and Cutaneous Review*.

Correspondence

TELEPHONE COMPANY ABOLISHES TRANSFER OF PHYSICIANS' CALLS

To the Editor:

I am informed that recently the Illinois Bell Telephone Company issued an order throughout the State of Illinois to abolish the privilege of having calls transferred from time to time. This, as you know, would inflict considerable hardship on the physicians who frequently ask for such a transfer in calls. This has been called to my attention from the Secretary of Adams County Medical Society, who states that the physicians of Quincy are protesting the ruling. He also suggests that this matter be brought up for discussion among the profession, and that mention be made of this ruling in the JOURNAL, so that

the various Medical Societies may take it up with the proper officials to see if something cannot be done toward effecting a special arrangement for the physicians. I am writing Dr. Swanberg, of Quincy, for the exact wording of their resolution.

I am also getting from the local telephone office the exact wording of the order. When I have this material available, which should be within a few days, I will write it up in a letter to you which you may publish, or, if you prefer, incorporate the material in an editorial of your own. I will write to you again relative to this in a few days.

Very truly yours,

H. M. CAMP,

Sec. Illinois State Medical Society.

INFORMATION ABOUT PIONEER ANESTHETISTS WANTED

Information concerning the pioneer anesthetists of Illinois is desired for the History of Medicine in Illinois which is now being compiled.

Will every physician who has devoted a considerable part or all of his time to anesthesia for a number of years kindly send at once, his name, address, the number of years in anesthesia and any other facts of historical interest to

FRANCES E. HAINES, M.D.

President of the Chicago Society of Anesthetists,
25 E. Washington Street,
Chicago, Ill.

THE DOCTOR.

A doctor is sure a remarkable man,
He delivers the babies wherever he can,
He stops our pains and relieves every ache,
And controls our diet, be it moonshine or steak.
He sometimes gets paid and often does not.
Why pay the old boy—for it's all tommyrot.
He can live on fresh air and promise galore
And wear the same clothing six seasons or more.
Never mind if he sleeps or is chilled to the bone,
Or is tired and weary when his day's work is done;
Just so he comes running whenever one's sick
And gets to the bedside most pretty d— quick.
Just forget 'bout his pay; it's no use anyhow
When he's dead, he don't need it, so why worry now.
Why think of his widow or orphans so much,
She can always take boarders and washing or such.

The moral is plain: That all should expect
The doctor like others his bills must collect,
For his wife will find out when he's gone and no more
Kind words are not keeping the wolf from the door.

EUGENE COHN,
Kankakee, Ill.

ARTERIAL HYPERTENSION FROM GONADAL INSUFFICIENCY

Detailed study of a hundred cases resulted in demonstrating that arterial tension is in inverse ratio to sexual power in the male and to the amount of menstrual blood in the female. Men of high sexual potency have a lower blood pressure than those of feebleness and have also well developed testicles, inferior stature and marked sexual appetite; while eunuchoids and those sexually deficient always exhibit raised blood pressure. In women, the more profuse the menstruation, the lower the blood pressure; and as sexual ability and menstruation diminish, arterial tension increases proportionally. The author finds these relations so unvarying as to constitute a diagnostic test.

Is the rise in blood pressure, he asks, the cause of a diminished gonadal secretion, or does insufficiency of the latter occasion hypertension? His observations favor the second of these views. It is established that diminution of ovarian secretion causes increase of thyroid secretion, and vice versa. But hyperthyroidism from ovarian insufficiency is much commoner than ovarian insufficiency from hyperthyroidism. Similarly the internal secretions of the ovaries and testicles have a stimulating effect on the adrenal bodies, and when ovarian or testicular insufficiency exists there arises sooner or later a condition of hyperadrenalism resulting in arterial hypertension. This does not mean that every time the sexual glands become temporarily insufficient serious arterial hypertension occurs. But, just as the existence of a healthy thyroid gland is necessary to the production of hyperthyroidism by ovarian insufficiency, so hyperadrenalism cannot result from gonadal insufficiency when the adrenal glands themselves are insufficient.—P. Zenope (*Revue Française de Gynécologie et de l'Obstétrique*, July, 1922).

MRS. MALAPROP DISCOVERS VITAMINES

Hostess: "May we serve you to another helping?"

Mrs. Malaprop: "Why, I believe you may. That food seems very nutritious. It fairly teems with pantomimes."—*Christian Register*.

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THE GREEN APPLE SEASON

Two boys coming from opposite directions met in the street. One boy had his mouth and hands full of green apples. The other boy, looking up as they passed, exclaimed:

"Are the green apples ripe already?"—*Indianapolis News*.

Original Articles

THE USE OF LOCAL ANESTHESIA IN ACUTE ABDOMINAL EMERGENCIES*

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No one will question the necessity for the use of local anesthesia in many varieties of acute abdominal emergencies nor will many question the dictum that the more grave the emergency the more necessary as a rule the use of local anesthesia becomes. In fact, it may be stated almost as an axiom that certain of these emergencies demand local anesthesia to the exclusion of all other methods. It is most unfortunate that, in a fair percentage of cases at least, it may be said that the greater the demand for the use of local anesthesia the more difficult will its application be found. Profound sepsis for instance may be accompanied by a mental state as well as physical conditions which make the use of local anesthesia especially difficult. Again, obstructions and some other conditions, while urgently demanding a choice of local anesthesia, are on account of the accompanying distention, difficult to treat by this method. Likewise, numerous other conditions in which local anesthesia is indicated, present technical difficulties which are not easily met.

Our experience covers almost every type of acute abdominal emergency. In almost all of these emergencies we have attempted to meet the indications by the use of local anesthesia.

In some the difficulties encountered have been so great that inhalation anesthesia was found necessary for the carrying out of certain portions of the operation. However, we have found it possible to develop a technic by which the indications could be met in the majority of cases by the use of local anesthesia alone. It is our purpose, therefore, first: to discuss some of the fundamental principles of the method, and second: to describe more specifically its application in the treatment of certain of the more or less frequent emergencies which must be met by the abdominal surgeon.

There are certain factors which have a marked bearing upon the success with which one may treat acute abdominal emergencies under local

anesthesia. Familiarity with local anesthesia technic resulting from its use in the more simple types of abdominal surgery will greatly reduce the handicap under which the surgeon finds himself when confronted with a tragic case. Such familiarity will, of necessity, develop in the surgeon a certain degree of ability. It will automatically result in the development of his assistants, equipment and team work which is so essential when an emergency presents. The safety and facility with which inhalation anesthesia may be resorted to, should the necessity arise, is a factor of the utmost importance. It allows the surgeon to carry out the primary steps of the procedure under local anesthesia with the full knowledge that he may at a moment's notice superimpose inhalation anesthesia as an adjunct and in a much smaller quantity than that found necessary if the latter alone were used. Even though the use of general anesthesia becomes necessary during the most difficult stage of the operation, it may almost always be discontinued and the operation completed under the local anesthesia which has already been induced. It is unusual in our experience in such instances to have the patient fail to regain consciousness before the operation is completed. The post-operative course of these patients has, in our hands, at least, seemed to prove that this modification of the method popularized by Crile has decided merit.

We have not, as a rule, depended to any great extent upon the use of preliminary narcotics for the purpose of meeting psychic incompatibility in these cases. In some instances the use of such medication was, in our judgment, less safe than the application of mixed anesthesia. We do not hesitate, however, to use moderate doses of sedatives when we feel that they are not contra-indicated. They allay restlessness and add greatly to the comfort of the patient, but do not act in any sense as a substitute for perfect anesthesia.

The essentials demanded by the tragic case differ only in degree from those required as a routine, excepting that each should, if possible, be accentuated to a superlative degree. Noise must be eliminated, irritations avoided, bodily comfort assured, anesthesia must be complete, exposure perfect and the operative technic "stealthy." It is perfectly obvious that the surgeon who reserves the use of local anesthesia for

*Read before the Tri-State District Medical Association, October 29, 1923.

the extreme or tragic case will find himself lacking in the essentials mentioned above and will therefore not be able to offer the best offices of local anesthesia when the need for them is greatest. It follows, therefore, that the most valuable asset which a surgeon may possess in relation to local anesthesia is familiarity with its use, equipment and team work on the part of the operating room personnel.

Most abdominal emergencies present certain features of a more or less uniform variety among which are shock, depression, rigidity, grave anemia (in cases of hemorrhage), low resistance, and not infrequently distention. Fortunately, all of these symptoms, except distention, are combated, temporarily at least, by the introduction of adrenalin and the solution (Ringer's) in which the novocain is dissolved. In fact it is not unusual to note an immediate improvement in the patient's condition following the induction of anesthesia.

It is perhaps not unreasonable, therefore, to suggest that the administration of novocain-adrenalin solution is a direct benefit to the patient exhibiting shock and depression. The administration of novocain solution invariably results in a reduction of rigidity in the anesthetized area. That its administration is of direct benefit in cases of acute hemorrhage cannot be doubted. Other things being equal the resistance of a patient will be lowered to a lesser degree by the administration of novocain than by the inhalation of any known general anesthetic. Distention, as stated above, offers one of the most difficult obstacles to the use of local anesthesia in abdominal surgery and yet, as will be shown later, even this obstacle is seldom insurmountable.

In detailing more specifically the manner of operating for certain abdominal emergencies an effort will be made to show that in cases in which the use of local anesthesia offers the greatest difficulty—its advantages in many instances, both during and after operation, counterbalance or even outweigh its disadvantages on account of the beneficent influence of the technic it demands and allows during operation and the improvement in the post-operative course.

For the purpose of illustration a brief description of the manner of using the local anesthesia method in the following emergencies will be described:

1. Perforations of the stomach, gall bladder, or intestines.
2. Appendicitis, acute, unruptured; ruptured with or without abscess.
3. Acute intestinal obstruction.
4. Hemorrhage.

Perforations. The perforation of an abdominal viscus must always be considered as a grave emergency in the case of sudden onset. The complete establishment of anesthesia of the abdominal wall will invariably result in a most surprising relaxation of the parietes. The abdomen should be opened over the suspected area by an ample incision which is made in a direction calculated to give the maximum exposure. The perforated viscus is, as a rule, not greatly distended, lies free in the abdominal cavity, may be manipulated in a moderate degree without the use of intra-peritoneal anesthesia and may therefore be dealt with most ideally under complete anesthesia of the abdominal wall, elastic retraction, good illumination and the application of surgical strategy. Perforated gall bladders, gastric, duodenal or typhoid ulcers and even gunshot wounds lend themselves most admirably to the use of local anesthesia. Intestinal resection, gastroenterostomy or cholecystostomy are among the more simple operations under this method. It is a well known fact that almost the entire intestinal tract may be explored under local anesthesia in the absence of adhesions or great distention. In exceptional cases, where a viscus is perforated by a foreign body (such as a bullet) in some inaccessible region, it may be necessary to employ general anesthesia.

Appendicitis: In this condition three stages of the disease must be considered—before rupture, after rupture, and after the formation of an abscess.

The removal of the appendix, during the first or second stage, under local anesthesia while presenting more difficulties than the performance of the same operation during the interval, is not only possible but in the writer's opinion often most desirable. Anesthesia of the abdominal wall must be absolute. The incision which we have used for over ten years is the transverse incision first described by Elliott,¹ placed rather low. The abdominal walls are carefully stretched by the use of wire spring retractors, the patient placed

1. Farr: Transverse Abdominal Incision. *The American Journal of Surgery*, September, 1915.

in a moderate Trendelenburg position and tilted well over to the left. In the vast majority of cases the appendix or the tissues protecting it will thus be brought into view. If not adherent, its mesentery is infiltrated *before* any attempt is made to elevate the organ. If adherent, its mesentery and the peritoneum in its region are immediately infiltrated. Long delicate instruments are used and the lines of cleavage are carefully followed. If a localized abscess is suspected, long, narrow strips of gauze may be introduced mesially without discomfort to the patient. In adherent cases it is not necessary to elevate the appendix base to the level of the incision. It may be as easily dealt with by means of a fine curved intestinal needle, a long needle forceps and the forceps tie of Grant. In other words, the surgical technic (strategy) must be made to accommodate itself to the condition presenting.

Localized abscess. In this group two conditions are to be considered. One may, under infiltration, open directly into an appendiceal abscess without first entering the free abdominal cavity; drainage may then be introduced and the operation terminated at this point or the appendix may be dealt with in the manner described below.

In the case of a localized abscess, which cannot be opened directly (and this applies to practically all forms of intra-peritoneal abscesses), the peritoneal cavity is opened in the usual manner, the abdominal wall is retracted vertically, as well as laterally, and an adequate amount of protective gauze packing is introduced. The parietal peritoneum is anesthetized provided it forms a portion of the abscess wall. The abscess is then opened with a blunt instrument which is made to follow the line of cleavage and the abscess is completely drained by means of suction. The opening into the abscess cavity should be sufficiently large so that its entire interior may be inspected. Almost without exception some portion of the appendix will be found presenting and it may be grasped by forceps, its mesentery clamped and its base severed. If there is the slightest difficulty in ligating these structures, a forceps may be allowed to remain in situ. The abdominal wall is then once more elevated and the protective packs removed. Their removal will usually bring the omentum into view. The protective influence of this structure is insured

by tacking it into the desired position by means of one or two catgut sutures.

From this time on every effort is made to maintain a quiescence of the movable abdominal viscera. The co-operation of the patient and the absence of vomiting will in the majority of instances furnish protection against the spread of the infection which results from the tossing about of the unconscious patient while recovering from general anesthesia or from the to and fro motion of the small intestines which may be forced in and out of the abscess cavity as a result of repeated retching and vomiting.

Acute intestinal obstruction. This condition, associated as it usually is, with distention, may in some instances, offer a great deal of difficulty when using the local anesthesia method. Notwithstanding this fact, acute obstruction, no matter what its cause, is so frequently associated with regurgitation and the possibility of the aspiration of septic material into the lungs that the protective reflexes should never be inhibited by the use of general anesthesia unless it is absolutely necessary. For this and for many other reasons it would seem most desirable to carry these cases through under local anesthesia whenever possible.

Obstructions which are associated with defects in the abdominal wall are most easily relieved under the local anesthesia method. The simplicity with which this may be done and the abundance of descriptive literature upon this subject would seem to obviate the necessity of describing the technic. All of the indications for the treatment of this condition may be met by the use of local anesthesia and in the writer's opinion the surgeon who inhibits the laryngeal reflexes in such a case by the administration of deep narcosis is withholding from his patient a certain percentage of protection to which the latter is entitled.

Internal obstructions, while demanding local anesthesia with the same emphasis, unfortunately may present greater difficulties. However, it is generally in cases complicated by marked distention that general anesthesia will be found necessary. The realization that the performance of an enterostomy alone is often the best means of meeting the indications in acute intestinal obstructions has greatly broadened the scope of local anesthesia in this field. The beneficent influence of emptying the distended intestine by

means of immediate enterotomy, if carried out aseptically² offers a means of emptying loops of distended bowel thus often greatly reducing the difficulties which are encountered. In cases in which this procedure does not seem to be indicated one may be able, after perfectly anesthetizing the abdominal wall, to exclude the distended loops of gut by careful packing and retraction to an extent which will allow him to locate the site of obstruction. Not infrequently following of the collapsed bowel will lead the surgeon to this point. We have also, in a number of instances, allowed the distended coils of intestine to eviscerate more or less completely under the protection of hot, moist packs after which the obstruction was relieved and the intestine returned to the abdominal cavity. Gangrenous gut, if encountered, should be immediately allowed to eviscerate after which primary or secondary resection may be accomplished. The patient's best interests demand the least amount of manipulation that will meet the indications. The administration of intraperitoneal anesthesia, when possible, is extremely effective and the exposed mesentery should be injected without stint.

Intussusception. We have for over 12 years relieved all of our cases of intussusception by means of local anesthesia alone. The observation by Dr. P. B. McLaughlin of Sioux City,³ that the induction of local anesthesia in the mesentery of the affected bowel caused the immediate relaxation of the contracted wall of the bowel is most interesting. As most of these obstructions occur at the ileo-cecal valve, the location of the incision is usually indicated, even in the absence of a palpable tumor. Upon opening the abdomen the tumor may present or may be palpated and delivered after which the mesentery should be infiltrated at once. All of our operations, excepting one, were performed upon children. In the case which occurred in the adult a transrectus incision was made over the tumor which immediately delivered itself and the intussusception was reduced without pain to the patient.

In the case of acute obstructions which are the result of neoplasms the indications may usually be met by this method of anesthesia. Preliminary enterostomy is often indicated and

provided metastases in the liver or pelvis are to be looked for, nitrous oxid may be given when necessary. We have found little difficulty in passing the hand into the abdomen for the purpose of making this exploration provided it is done slowly and carefully.

Hypertrophic pyloric stenosis. There are few operations in surgery in which the patient comes to operation in such a pitiful condition as in the neglected case of hypertrophic pyloric stenosis. In fact, the average case is apt to demand every element of safety which surgery offers. The successful accomplishment of the Rammstedt operation under the use of local anesthesia necessitates team work and the careful following out of a definite preconceived regime. Strict adherence to the rules about to be enumerated allows one to carry out this operation step by step with despatch and the certainty of technical success. An arm table corresponding in height to the operating table is placed at right angles to the latter and near its center point. A stool is placed at either side of the arm table and one at its end. A pillow is then placed upon the arm table and upon this a thick layer of sterile absorbent cotton is spread. The child, whose clothing has been removed, is placed upon the bed of cotton, its feet securely anchored to the operating table, while the psycho-anesthetist assumes the sitting posture and grasps the child by the arms. The abdominal wall is quickly sterilized with iodine and sterile drapes are put in place completely covering the operating table which is used as an instrument table during the operation. The surgeon sits upon the stool at the child's right, the assistant at its left, the sterile nurse stands at its feet. By making traction upon the arms the psycho-anesthetist can control the child absolutely. The abdominal wall is quickly infiltrated by using a fine needle and the subdermal method. We prefer the transverse incision along a line slightly above the lower edge of the liver. Just before opening the abdomen a catheter is introduced into the child's stomach and the gas or fluid with which this viscus is usually distended are forced out by making pressure upon the abdominal wall. The abdomen is now opened between towel pins which retract the abdominal wall vertically and a small retractor used to draw the edge of the

2. Farr: Surgical Clinics of North America.

3. Personal communication.

liver upward. The enlarged pylorus may now be brought to the surface between the operator's thumb and finger, or better by means of rubber-tipped forceps. Should the child show signs of distress, which is unusual, the attachments of the pylorus may be infiltrated. A pacifier is usually placed in the child's mouth at this stage of the procedure. The Rammstedt operation may then be completed, a fine catgut suture passed through the upper edge of the severed pyloric ring and thence through a tab of the omentum and tied, after which the abdominal wall is closed. Many years ago we made the assertion that from a strictly technical standpoint the performance of this operation was, as a rule, no more difficult than the circumcision of a child of the same age. Increased experience would seem to indicate that this statement is not an exaggeration.

Intra-peritoneal hemorrhage. The literature teems with a discussion of the appropriate time to operate in this condition. Since becoming conversant with the use of local anesthesia we have in every instance operated at the earliest possible moment. In tragic cases the introduction of intravenous saline solution or better, non-citrated blood, is begun coincident with the infiltration of the abdominal wall. The abdomen is opened and the bleeding point searched for and treated with all possible despatch. The spleen may be removed after infiltrating its pedicle. The liver may be sutured or gauze packs may be applied or a ruptured tube may be ligated and removed. No attempt to remove the blood clots is necessary and the technic is simplified by allowing them to remain. It is our belief that the stimulating effect of the anesthetic solution (novocain-adrenalin in Ringer's) combined with transfusion and the prevention of further hemorrhage by the use of this benign method offers to the case of intraperitoneal hemorrhage the best possible chance of recovery.

There are other acute abdominal conditions which might be discussed in this message. However, we believe a sufficient number have been touched upon to demonstrate the facility with which local anesthesia may be used in many abdominal emergencies. We further believe that local anesthesia deserves more frequent application in these cases.

HYPERNEPHROMA OF THE KIDNEY, WITH REPORT OF TWO CASES*

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The subject of hypernephroma has been thoroughly discussed in most of the text-books devoted to disturbances of the kidneys and the pathology of this lesion is generally quite well understood. Its clinical course is well known, but the diagnosis in some of the atypical cases is somewhat difficult and offers a problem of great interest.

Hypernephroma, also mentioned in the literature as nephrogenic mesothelioma or Grawitzian tumor, makes up about seventeen per cent. of the renal tumors coming to the attention of the surgeon. The term hypernephroma was introduced by Birch-Hirschfeld in 1892. The etiology was thought to be very obscure; many theories were mentioned as:

(a). Embryonic defects; Cohnheim's theory of embryonic inclusions was conceded by Osler, Kocher, Little, Williams and others. They have described the growth present at birth. The Wolffian origin, as stated by Kelynack, "The Wolffian bodies atrophy from before backwards, and hence the part nearest to the kidney would be the last to disappear, and therefore the most likely to become included." Many authors have described tumor in the fetus and in the early months of infancy. In the adult, it is thought possible that these inclusions may be dormant for many years and then due to some unknown influences begin active growth and manifest such character as would associate them with malignancy.

(b). It is thought by some that hypernephromas were carcinomas arising in the epithelial cells of the renal tubules.

(c). Previous to the publication of Grawitz's article in 1883 these tumors were classed with lipomas. This mistake was due to the fatty appearance of the yellow material in some of these tumors; it resembles lipomatous tissue and it was not until Grawitz's contribution that this error was corrected. His description of the growth definitely differentiated it from lipoma.

*Read before the Tri-City Medical Association, at Davenport, Iowa, July 10, 1924.

He suggested that hypernephroma probably arose in detached (ectopic) pieces of the adrenal (accessory adrenals), basing his belief, that these growths were of adrenal origin, on the following facts:

1. The usual position of the growth underneath the capsule of the kidney where adrenal rests are usually found.

2. The tumor tissue has the same physical characteristics as the adrenal glands.

3. Fat infiltration of the tumor cells, which is a constant feature of the adult adrenal cortical cell. It was thought by some that this was not a fatty infiltration but a fatty degeneration of the tumor tissue until it was demonstrated an infiltration by Grawitz.

4. The high glycogen content of the tumor tissue.

5. Numerous endothelial blood spaces.

6. The presence of a limiting capsule which definitely marks the growth from the surrounding kidney tissue.

7. The relation of the cells to the stroma of the tumor.

8. Microscopically hypernephroma imitates the structure of the adrenal zona fasciculata. Shortly after his article was published, it was questioned by Stoerk and others. Stoerk was of the belief that these tumors were not adrenal in origin. Grier and Wells claimed that the tissue of hypernephromas does not contain adrenalin. Wilson and others were of the belief that hypernephromas arose from (ectopic) nephrogenic tissue. They applied the term nephrogenic mesothelioma. Trisch and Zuckerland supported Grawitz's interpretation. Bland-Sutton states: "Whatever view may be taken of the tissue in which these tumors arise, it is quite certain that they exhibit peculiarities of structure which distinguish them from ordinary round and spindle-celled species of sarcoma. Their malignancy is equally beyond question, for they recur after removal and give rise to secondary nodules in the lungs. The frequency with which the lungs are affected is due to the primary tumor invading the renal vein."

Probably the many objections that were offered by good writers were due to the fact that the scope of Grawitz's tumors was too widely extended. Now the Grawitzian theory has become generally accepted. Ewing, *Neoplastic Diseases*, 1919, Text-book on Tumors, states: "On these

questions it may be said that the presence of adrenal rests of the kidney is fully attested, although they are probably less frequent than many have supposed. It also appears that certain tumors arise from these rests."

Heredity and traumatism do not seem to be important factors. Calculus is often associated with tumor; but it is more than likely secondary in formation. Congenital abnormalities of the kidney and chronic inflammatory conditions do not seem to be important predisposing factors.

It occurs more frequently in the male than in the female. In a series of 114 collected cases, 62 were males and 52 were females.

Age incidence: It may occur at any age but most frequently in the cancer period. In one large series of cases, the greatest number occurred between fifty and sixty years of age.

It is generally unilateral and may affect either kidney. It is rarely bilateral and should both kidneys be affected, it is more than likely that one of them is the result of a secondary deposit from the primary growth in the other kidney.

The onset is insidious and often without pain. The tumor is often unnoticed until it is quite large and interferes with some function of the body or is accidentally discovered. Hematuria is usually an early symptom; it occurs in about sixty to seventy per cent. of all cases. It is usually of intermittent type and profuse, often an interval of weeks elapsing between hemorrhages; it may be slight and continuous.

Work and manipulation of the growth increases hemorrhage.

Hemorrhage may precede other symptoms years before the tumor is palpable; ordinarily though retro-peritoneal tumor can be palpated at the time of the first hemorrhage. In some cases the passage of a blood clot down the ureter causes a renal colic.

Next to hematuria and palpable retro-peritoneal tumor, pain is the most common symptom. It may be dull and continuous or come on suddenly, followed with hematuria. The tumor is often painless until the disease is quite well established. Varicocele is often suddenly developed due to the fact that the spermatic vein has become blocked: this is quite a valuable diagnostic aid (particularly when it occurs on the right side), sometimes is the first symptom, coming on suddenly, may last for a few hours, followed by hematuria, and frequent urination.

As a rule it is on the same side as the pain—sometimes it disappears when the patient lies down. There is sometimes a characteristic fever curve. One observer in a series of eighteen cases reports fever curves, remittent and intermittent, initial, intercurrent and terminal. This, however, occurs in all malignant tumors of the kidney. A high leukocyte count has been noticed in some cases. If hematuria is absent the diagnosis is quite difficult.

Early arteriosclerosis in youthful patients, with high blood pressure, is sometimes noticed. In young patients this growth occurs often between 1 and 8 years, more often in girls than boys. Their growth is abnormal and these children are cross and sullen.

Hypernephroma often evokes phenomena opposite to those of Addison's disease.

1. Early development of the genitalia. The face, genitalia and pubis are prematurely covered with hair.

2. Obesity, appetite and thirst are excessive, often associated with gastric disturbances.

3. Skin darkened, but not bronzed as in Addison's disease—the bronzing in Addison's disease is due to insufficiency of the adrenals—but in hypernephroma the darkened skin is due to adrenal over-activity. In Addison's disease the pigment is deposited in the skin but in hypernephroma the pigment is sent to the skin in excess.

These tumors vary greatly in size from that of a pea to those that are large enough to change the conformation of the abdomen. They originate in the cortex immediately beneath the capsule, usually in the upper pole of the kidney. They are always encapsuled; this capsule definitely separates the tumor from the kidney substance. When the growth is large it may extend through this capsule.

It is thought by some that when these tumors are small they are benign and in some of the text-books hypernephroma is classified as benign and malignant. They are all malignant or potentially malignant. Several cases have been reported where extensive metastasis has been found in the bones and elsewhere, where the primary tumor in the kidney was found to be quite small and encapsulated.

The disease is disseminated by metastasis through the blood stream or by infiltrating contiguous structures by the growth rupturing

through its capsule. Some cases are on record where there has been a glandular involvement, the metastasis taking place through the lymphatic system; this is however quite rare.

Hypernephroma grows more slowly than most malignant tumors and does not have the tendency to penetrate the renal capsule; in general, the tumor corresponds to the form of the kidney. The readiness with which the veins become involved is characteristic. A finger-like outrunner of very soft malignant tissue like a blood clot or thrombus in appearance frequently invades the renal vein beyond the hilum of the kidneys into the inferior vena cava.

Metastasis is apt to take place in any part of the body. The brain, bronchial tubes, lungs, diaphragm, gluteal region, heart, intestines, liver, thoracic duct, omentum, pancreas, pleura, peritoneum, skin, uterus and bones have all been reported as having been the seat of metastasis. Spontaneous fracture of one of the long bones may be the first evidence of the disease.

The duration of the disease varies greatly, from one to ten years; the duration is considerably shortened when there is early metastasis. In a series of twelve cases, all died from metastasis except one and that was a recent case. Several other series are reported in which the mortality is almost as high.

In 176 collected cases the following mortality is shown. Of the 176 cases there were 143 nephrectomies which are tabulated as follows:

Immediate operative deaths	33
Died later after operation	43
Survivals	31
Results not stated.....	36
Total	143

This report is somewhat unsatisfactory due to the fact that many of the records were incomplete. Of the 43 that died after operation, only four lived beyond the three-year period. One of them died eleven years after operation, 33 (of the 43 that survived the operation but died later) died in less than three years after operation.

Case 1: Mr. E. K., aged 54, white, male. Occupation, clerical work. Admitted to St. Luke's Hospital, Chicago, January 14, 1921, with the following complaints:

- 1. Tenderness over the upper abdominal wall.
- 2. Hematuria.
- 3. Polyuria.
- 4. Feeling of pressure in the bladder.
- 5. Loss of appetite.
- 6. Loss of weight.
- 7. Sudden development of a left sided varicocele.

8. Engorgement of veins on the right side of face.

Note: Hematuria has been present about ten times during the past year; for the last twenty years the patient states that he has had hematuria, which would come on at varied intervals and last for a few days, then disappear for several months.

Previous illness: Chancre in 1900, took no treatment. Gonorrhea in 1918.

Family History: Father died at the age of 79, mother died at age of 58 with cancer of the stomach. Brother, sister, wife and child all living and well.

Physical examination: Patient is a fairly well nourished white male, 54 years of age, who does not appear acutely ill. Face moderate full, red, flushed and smooth. Eyes react to light and accommodation. Mouth negative. Hearing normal and nose negative. Neck is regular, no enlargement, no cervical adenopathy, slight venous pulsation. Chest is regular, full, expansion good, no rales, no consolidation, slightly increased bronchial breathing. Heart apex is outside nipple line, systolic blow best heard at apex and transmitted to axilla; slight accentuation of pulmonic second. Rhythm regular, beat slow, tone generally good. Abdomen regular, moderate full. Liver not palpable. Marked tenderness and soreness over epigastrium. Left kidney, palpable, extends nearly to midline and downwards to the level of the umbilicus. Kidney is hard, movable and not nodular. Genitalia and extremities negative. Reflexes, bone and joints and skin negative. *Preoperative diagnosis,* hypernephroma.

Cystoscopic examination: Bladder is negative. Ureters are catheterized with casc. Phenolsulphonephthalein test was made and separate specimens taken from right kidney, left kidney, and bladder. Report: Left kidney, ten minutes, contained no dye. One hour specimen, 23cc, 2% phenol. Two hour specimen, 32cc, 2.8% phenol. Right kidney, ten minute specimen, 3cc, contained no dye. One hour specimen, 28cc, 7.2% phenol. Two hour specimen, 30cc, 7.1% phenol. Bladder specimen, too much blood to read.

Blood examination: Erythrocytes, 2,710,000; leucocytes, 8,400; hemoglobin, 48%. Chemistry-Blood sugar, 0.108%. Blood urea Nit. 29.42 per 100cc.

Urinalysis: Urine from bladder, specific gravity 1.015, opaque, straw color, faintly acid reaction, albumin, a few hyaline casts, frequent leucocytes, red cells, and renal epithelial cells. Blood Wassermann was clearly negative.

X-ray examination of both kidneys: The left kidney is greatly enlarged. No evidence of stone in either kidney.

Operation: Curved incision was made over kidney region (lumbar). A very large nodular left kidney was found, two and one-half times the size of a normal kidney. This was delivered and pedicle was clamped and tied and kidney removed. Muscle and skin were approximated and gauze drain inserted.

The specimen was examined by Dr. Edwin V. Hirsch, who reported as follows: A kidney 16.5 cm. long, 10 cm. wide and 7 cm. thick, in its upper pole having an encapsulated yellow nodule 9 cm. in diameter. On the surfaces made by cutting this nodule, there is friable

yellow tissue mottled by many small hemorrhages. Dissection of the vessels at the hilum discloses a red thrombus in one, and in another near the lower part of the tumor, a thrombus 4 cm. long, 2 cm. wide and 2 cm. thick, yellow and friable, resembling the tissue of the tumor proper.

Histology: The sections of tumor tissue, taken from various places contain cells repeating essentially the structure of those of the adrenal cortex.

The patient made a splendid operative recovery and was discharged from the hospital in good condition. About five months later he displayed evidences of multiple metastases in both lungs and the liver and died shortly after.

Case 2: Mrs. M. F., aged 44, colored, female, occupation cook, admitted to St. Luke's Hospital, Chicago, June 12, 1919, with the following complaint: Patient has noticed a lump in her right side for six or seven years, painful for four or five years, much worse just before entering hospital; this pain over the region of the right kidney.

1. Hematuria.
2. Loss of weight.
3. Loss of appetite.
4. Sleeplessness.

The patient describes the pain as being similar to labor pains. Accompanying these attacks of pain is the passage of dark red blood from the urethra. These attacks are brought on by over-exertion and exercise, and last for two or three days and of late attacks have been more frequent. Patient states that moving around causes an increase in the right lumbar pain. Family history negative.

Physical examination: Patient is well developed and well nourished negress, apparently fifty years of age. Head is normal. Hearing is normal. Pupils are equal, regular and react to light and accommodation. Mouth is negative; neck negative. Chest: Lungs are negative. Heart is normal in size, apex not palpable. Mitral systolic murmur is heard at apex transmitted to axilla. Abdomen: Right kidney greatly enlarged and tender. Liver and spleen are not palpable. Extremities normal. Blood urea, 23.3 mg. per 100cc. Total non-protein Nitrogen equals 37.7 mg. per 100cc. Blood Wassermann clearly negative. Urine negative except for erythrocytes and frequent leucocytes, and in some specimens a trace of albumin. Urine was examined for tubercle bacilli and none found.

Operation: Right nephrectomy was done. A large right kidney removed. *Diagnosis:* Hypernephroma.

The patient was discharged from the hospital November 16, 1919, about four months after operation, apparently cured.

BIBLIOGRAPHY

1. Kelyack: (Hypernephroma) "Renal Growths," 1898, p. 23.
2. Grawitz: (Lipoma) Virchow's Archiv., 1883, Bd. xciii. S. 39-63. (Origin of Growths from Adrenal "Rests") Verhandl. d. Deutsch. Gesellsch. f. Chir. Berlin, 1884, Bd. xiii. S. 28-38.
3. Trisch and Zuckerkendl: (Struma Supraenalis Accessoris) "Handbuch der Urologic." Bd. ii.
4. Sutton, Bland J.: (Hypernephroma) "Tumours Innocent and Malignant." Sixth edition, 1917, p. 112-114.
5. Ewing: (Hypernephroma) "Neoplastic Disease," 1919, p. 117, 123 and 136.

6. White and Martin: (Hypernephroma) "Genito-Urinary Surgery and Venereal Diseases." Tenth edition, 1917, p. 669.
7. Garceau: (Hypernephroma) "Tumours of the Kidney." 1909.
8. Shudders: *Ann. of Surg.*, 1906, Vol. 44, p. 855.
9. Wilson, L. B.: (*Jour. of Med. Researches*, Jan., 1911.)

PUBLICITY SIDE OF PUBLIC HEALTH WORK*

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I am inclined to start this discussion of the publicity side of public health work with the postulate, "Publicity is an essential factor in any organized effort for public betterment." In fact, it may be taken for granted that publicity counts for as much as an adjunct in successful public health work as it does in the successful exploitation of any article of merchandise. Important health truths are often driven home more forcefully in a single sentence than in an essay of many hundreds of words. The short, pithy paragraph is read by almost everyone under whose eye it may fall; and the fewer words in which an important statement is made, the more easily it can be remembered.

The properly organized and equipped health department of today finds its activities largely in the field of what is known as preventive medicine. It seeks to prevent needless sickness and death and in this way to prolong life and promote the general welfare.

As is well known, most of the communicable diseases are preventable; and the great, big factor to aid in this prevention is publicity—publicity and education. These two terms are practically synonymous. Publicity means information; information means enlightenment and in a sense education. I take it, it would be conceded that a health department, no matter how well equipped, cannot reach its highest efficiency without the intelligent co-operation of the people it is seeking to serve. But before this intelligent co-operation can be obtained, the people must be shown why such co-operation is necessary. And this means that the health official must inform and educate those people who, conceding that they need his services, have no clearly defined conception of his duties and responsibilities and still less as to their own.

The health department of today in its many activities touches more closely perhaps the life

of the people than any other branch of the municipal government. The reason for this is obvious, as under most municipal laws health departments have to do in a regulatory way with almost everything and anything which has a bearing upon community comfort and safety. And in order that activities of this character may be successfully carried out, publicity and education are necessary.

It is difficult to get people to conform to certain requirements in the interests of public health and comfort when they are not informed as to the needs of such requirements. Both interest and co-operation are stimulated by the knowledge of why certain things are a menace to public safety. For example, when a citizen fully understands the direct and important connection between a pile of stable refuse and the swarms of disease breeding flies that torment both him and his family, he is then ready and willing to comply with the notice served admonishing him to remove the cause of his trouble. And when he has also learned that the fly carries the germs of many of the dangerous diseases and in this way causes sickness and death, he can easily be enlisted to give his time and even his money to rid his neighborhood of flies and protect the health of his own and his neighbor's family.

So in community clean up weeks, publicity is the great, big factor. The educational side of this publicity lies in the people being educated to the fact that, if cleanliness is a fine thing for one week in the year, it is still better to be practiced 52 weeks in the year. It does not take long to carry home the idea that the battle against dirt and unsightliness is continuous; that dirt and filth accumulate, cleanliness does not.

Publicity and education have made valuable the greatest discoveries of medical science. And this is true from the discovery of vaccination for smallpox down to the discovery and use of toxin-antitoxin as a prophylactic against diphtheria; not forgetting either the work done by Reed in capturing the *Stegomyia* mosquito as the agency through which yellow fever was transmitted and spread throughout the south. As a result of the publicity following the fact that a certain type of mosquito was responsible for the transmission of yellow fever, we have the Panama Canal, which, while a triumph of modern engineering

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skill, is not so much a tribute to the noble profession of engineering as it is one of the crowning achievements of medical science. It may be remembered that France tried to build a waterway across the isthmus and failed, not because of lack of engineering skill or financial means, but because she did not have the necessary knowledge of the mosquito—the anopheles and stegomyia—which through exploitation is common property today. Uncle Sam was able to build the Canal because of his knowledge of the mosquito. And while the Canal was being built, be it recorded that the death rate in the Canal Zone was as low, if not lower, than it was in the City of Chicago.

The progressive public health official is keenly alive to the fact that publicity, or advertising if you so please to call it, can only be made effective by keeping everlastingly at it. Constant, almost daily, repetition of well known facts is necessary. For example, in the Bulletins of the Chicago Health Department, I take it, it has been repeated thousands of times that diphtheria begins usually with a sore throat. Don't neglect the slight sore throat. Call your doctor early. And yet because of the department's inability to reach all the people all the time and only a few of them part of the time, Chicago's diphtheria death rate, like that of most other cities, still is criminally high. More publicity would help to bring diphtheria under control. I mean by this the kind of publicity that carries with it the information which would educate people to the things that they should do to prevent their children from having this dread disease.

There is need, too, although I say it with due respect in this presence, of education along public health lines among the doctors. The busy, bedside practitioner has no time to study or visualize public health problems. It frequently happens that he may have the wrong viewpoint as to his relation to his health department. He may feel, and possibly sometimes not without cause, that he is not getting the help and co-operation from his health department that he is entitled to. But so far as my experience goes, health officials are anxious and earnest in their efforts to have the co-operation of the medical profession and equally anxious and interested in creating an intelligent demand for the services of the family doctor.

I think I can say without exaggeration that

in the ten years or more in which I have been engaged in the publicity and educational work of the Health Department of the City of Chicago, one of the prominent, if not the prominent, features of all our publicity work consisted of advice and pleas, urging the people to avail themselves of medical skill and treatment. A notable example of this sort of propaganda may be found in the literature of health departments almost everywhere, urging upon people generally the importance of periodical medical examination. This sort of health department publicity is based largely upon the growing death rates from the degenerative diseases, such as organic heart disease and chronic nephritis; diseases which are killing people in early life.

I know that in the Chicago Department of Health, through our publicity work, we have been hammering at this subject for several years. We have tried to drive it home to the masses in a way so simple that he who runs may read and understand. In some of our literature the comparison has been made between the human machine and the high priced automobile. The owner of the automobile is quick to detect something wrong or unusual in its working. And because he thinks a good deal of that machine, he drives it around to the mechanical expert, has it looked over and put in good running order. He is not so careful, however, with his human machine. Too often he neglects taking himself to the medical expert until it is too late; and like the neglected automobile, ready for the scrap heap.

So we have publicity campaigns on cancer, in which the people are again advised to seek early diagnosis and treatment.

Medical science has furnished the knowledge as to the cause of typhoid fever and how it is spread; but publicity has made that knowledge a blessing to millions. Time was when a death from typhoid was attributed as an act of Providence. Now we know it is either man's cussedness or stupidity. Towns and cities over this land are beginning to learn that it is little short of criminal idiocy to pour their sewage filth into the sources from which they take their water supply. Publicity and education are the factors that are helping to make this world a safer, cleaner place in which to live. Exploitation of the right kind of knowledge makes always for

better community conditions and higher standards of living.

Awhile ago I made the statement that there is need of education among the medical profession along public health lines. In view of the fact that this statement may be challenged, I respectfully submit the following as an example.

Some years ago in the Department of Health an investigation was made into 300 diphtheria deaths, the object being to determine why those 300 children had died and also to fix the responsibility. The tabulations showed after careful investigation that in 55 per cent. of the cases the parents were to blame; in 45 per cent. of the cases the physicians were at fault. This means that the parents had neglected to call the doctor soon enough. They thought it was only a little sore throat and it would be all right in the morning. The next day or the day following it was too late. The doctor, however skilled, was called only to make a losing fight. In the cases where the doctors seemingly were at fault, it was found that they had been called on the first day of the attack but had hesitated to administer antitoxin, either because of doubtful diagnosis or reluctance to place their patients under the rigors of quarantine.

Perhaps it should be explained that the department has a rule, if antitoxin is administered the case must be reported as a suspect and the house placarded. I can understand readily why the practicing physician hesitates in some cases to administer antitoxin as promptly as he should. Also there are physicians who have a morbid fear of anaphylaxis, although they are few, and who hesitate to give antitoxin on that account. We find physicians, too, who, if informed, are indifferent as to the importance of the Schick test and the prophylactic use of toxin-antitoxin.

I believe I am warranted in saying that if both parents and physicians were thoroughly familiar with the work done by Drs. Park and Schroeder of New York during the past ten years and would avail themselves of the agencies now made possible by medical science, diphtheria would soon reach the vanishing point in any community where such procedure was intelligently and persistently carried out.

My faith in the value of publicity in public health work is such that I am convinced that if the Health Department of the City of Chicago could spend money as liberally in exploiting

the Schick test and toxin-antitoxin as a certain well known business man has expended it in exploiting his chewing gum, in a very few years we would have no diphtheria in Chicago.

It was the Earl of Derby who said "Sanitary instruction is even more important than sanitary legislation." Sanitary instruction can only be given the masses through publicity. A public which is informed in matters of public health and community sanitation is a public which will give intelligent and hearty co-operation in all movements for public betterment. Because this is true, the successful health official seeks to make use of every available means at his command for informing and educating on health matters the people he serves. And in doing this he is not averse to the daily interview with the newspapers of his town on health topics.

It is gratifying and encouraging to know that the newspaper men themselves appreciate the news value of the health story. And in this connection I would like to pay a tribute to Dr. Frank W. Reilly, for many years Assistant Health Commissioner of Chicago, and who was sometimes rightly called Chicago's most useful citizen. In my judgment Dr. Reilly may be said to be the father of publicity and education as important factors in public health work. For many years Dr. Reilly was the managing editor of one of Chicago's leading dailies and it was in that capacity that he discovered the value of the health story from a purely news standpoint. He found that health information has a distinctive news value. Also that people, or at least a large part of them, are anxious to know about the things that cause needless and, therefore, preventable sickness and deaths among them.

It was along these lines that 25 years or more ago he wrote, published and had widely circulated by the Chicago Department of Health a pamphlet, "Summer Care of Babies." This valuable little publication was among the first, if not the first, publication of its kind ever issued by a department of health in this country.

So here we had a trained newspaper man, who was also a skilled physician and sanitarian, instinctively recognizing publicity and education as fundamental aids in the successful prosecution of public health work. Dr. Reilly recog-

nized the importance of letting the mothers of Chicago know why their babies sickened and died and the things that could be done to save them. And so it was that this great advocate of public sanitation created the "health story" and made it news. And when he did this, he set in motion the agencies that have saved the lives of thousands of babies in Chicago and stimulated the health officials of other cities to follow his lead.

DISCUSSION

Mr. B. K. Richardson (Springfield): I heartily endorse the sentiments and opinions expressed in Mr. Pritchard's paper. It is just along the lines that I am thoroughly convinced that health work will progress and without the kind of publicity that Mr. Pritchard has recommended a Health Department will not get very far.

Dr. I. D. Rawlings (Director State Department of Health, Springfield): I am very glad to hear this very interesting paper from a man under whom I received much of my training. I also received a little under Dr. Reilly as well as Mr. Pritchard and we know that much of the excellent work that has been done and is being done in the Chicago Health Department is largely due to the health education which Pritchard has spread through the writings which he has given that city in connection with the Sanitary Bulletin of that Department.

Not long ago I met Dr. Dowling, the Health Officer of New Orleans, on the street and he said: "I want to congratulate you on the fact that I heard Dr. Rankin say Chicago has the best Department of Health he had investigated up to that time for the National Committee on Municipal Health Department Practice." I said, "Why congratulate me?" He said, "I had forgotten you were not still with that Department," and I told him he couldn't offend me by saying that of Chicago's Health Department, for I was with them twenty-two years. But much of that Department's good work is due to Mr. Pritchard, who has been here day in and day out for nearly thirty years. I think in part the good record made there is that the Department is under Civil Service and the men doing good work there continue year after year, they get their message "across" by saying the same thing over and over again, in a little different form perhaps. It is the very best thing for the health service of the public that we do have newspaper men get into the health game because of the education and publicity which is an all important thing in health work. The people become educated so that they understand why health officials are doing these things and then they are with us both in providing funds and co-operating to help carry out the things that will benefit them.

Edward R. Pritchard, Chicago (closing the discussion): I have no desire to trespass on your time except I feel that there is a crying need for more intelligent and better organized publicity work in all public health activities.

I was very much interested in the paper read by Mr. Glueck this morning, and it seems to me that in every paper presented here I saw the publicity angle. I saw what could be done. I have heard it said that a specialist sees his specialty in every case he looks at. Perhaps, as I am a publicity specialist, I see the publicity possibilities in every phase of public health work which has been presented this morning that I have listened to.

I recall the mention of bubonic plague in California, but I can't remember the Doctor who presented it; but I felt like getting to my feet and saying it was what we call pitiless publicity which uncovered that situation there and has helped to clean it up. We know that Uncle Sam is still conducting his campaign against rodents and other flea bearing animals, and today hundreds of experts on his payrolls in the states on the Pacific coast are trying to wipe out those disease bearing animals.

Our bulletin in the Department of Health has sixty-five hundred circulation. Sometimes it makes me think I am trying to beat down a brick wall a mile high and a foot thick with a tack hammer. Last month, however, we sent out a milk bulletin with the co-operation of the milk dealers association of the city of Chicago of five hundred thousand copies; and through the co-operation of the milk wagon drivers there was one placed in almost every home in the city. So that helped a little.

RADIUM TREATMENT OF MALIGNANCY*

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The treatment of malignant conditions by radium has now been in operation for a sufficient length of time to permit conclusions with regard to its value to be formulated.

There is a certain group of cases of malignancy where treatment with radium has apparently, so far as my observations extend, been capable of eradicating the clinical manifestation of the disease and has been pronounced "cured" if you will pardon the phrase—as it would, indeed, be premature to use the word "cured" without the commonly accepted three to five year time limit. This group of cases includes the more superficial and less rapidly metastasizing forms of carcinoma.

Statistics show us that the cancer death rate has increased and from the fact that it is constantly rising, evidences a deplorable condition and demands a much larger measure of public support than it has received in the past. And yet, we have overwhelming evidence that cancer

*Read at the Annual Meeting of the Illinois State Medical Society at Springfield, May 7, 1924.

cases are being arrested, or cured, to an increasing extent, and that many who might have died from cancer, die from some other disease, as the result of early diagnosis.

To keep up an effective work against this dreaded disease, we must show a closer co-operation with the general practitioner—as he is the one upon whom the responsibility of early recognition must depend and it is his duty to not permit cancer cases to drift along, until a chance of an effective radiation has passed. At the present time the large majority of cases which come to the hospitals for radium treatment have a hopeless prognosis, partially because they have been overlooked or because they have been allowed to drift along. This isn't fair to the competent general practitioner, neither is it fair to the radiologist or the surgeon. When in doubt as to definite diagnosis it is much better to consult with one who has had a greater experience in this special field, rather than be embarrassed later with a malignancy of a vicious type.

As we know, some avoid the general practitioner because of fear of an operation and for this reason seek the drug store remedies or more frequently go to the cancer quack who applies his usual arsenic paste. It is this class of patients that cause us more grief than any other, because they come to the physician late, and he is called upon to treat the metastases, and because radium or surgery fails in this group both methods are condemned by the patient and his friends; and his friends like himself are likely in their turn to lose the best chances for recovery.

To cure cancer cases, they should be treated early and thoroughly. Thorough treatment *must* include radiation, no matter what other form of treatment may be in combination. Whether radium should be used alone or combined with other treatment, is a matter for careful judgment in the individual case.

I believe that the patient having epithelioma of the lip does not get all possible chances for recovery unless radium is given. Radium is the best form of radiation locally on the superficial lesion and in regions where glandular metastases are likely to take place. Before treatment is begun in these lip cases every form of irritation affecting the lip should be removed, such as a jagged tooth, irritation from a pipe, cigarette

paper, excessive cigar smoking, or excessive exposure to heat, cold or wind.

Both Bloodgood and Phaler advise the use of radium without the removal of a section for diagnosis, as it gives no advantage and often aggravates the disease. Personally I agree with them and carry it out in my practice, as it has been a long time since I sectioned a lip case.

It requires very little more traumatism or deformity to destroy the growth and if it were on my lip I would rather have it off than merely know what it is. The danger to the patient of artificial spread of the disease outweighs the advantage of certain diagnosis.

Any fissure or crust formation on the lip that lasts over a month without a complete healing should be looked upon with suspicion. Occasionally we get a case of cancer of the lip that has been treated for syphilis, but syphilis should be no cause for neglected treatment since it is possible to have both diseases at the same time. A positive Wassermann test will help eliminate lues from the diagnosis. The local lesion in these cases is probably engrafted upon a syphilitic base.

If the case is a suitable one for radium, details in regard to the dosage, screening, distance, duration and frequency are determined. Special methods of application devised for special cases and the progress of every case treated, should be followed by one familiar with this special field of work, and if patients are thoroughly treated in the early stages, practically all should get well.

The radium needles are used mostly in these particular cases and they are the plain metallic needles containing radium sulphate in the amount of five to ten milligrams. The technic of application is usually the through and through method. In treating these cases one must not overlook the glands that are usually involved. If the invaded glands have not broken down, they will usually disappear under judicious cross fire radium treatment. An external application of a radium plaque may be given if the glands so affected are small. But if the glands have acquired considerable size, the radium needles may be inserted directly into the glands. Sometimes it is difficult to determine whether a true metastases has taken place or simply inflammatory.

Whether it is possible to accurately determine this condition or not, radium is indicated in either case. If degeneration has taken place in the parenchyma, the size will be reduced, but not entirely disappear due to benign fibrous tissue. (Glands in this state may be curretted, incised or drained with comparative safety to the patient.)

Nearly all malignant conditions at the present time are treated by the needle method, which has revolutionized radium technic.

Better results are obtained by inserting radium needles directly into the malignant growths or into an organ contained in the peritoneal cavity after exposure of the lesion by laparotomy, than by any other method.

The plaque for surface radiation is still popular with radium users as is the capsule, for amassing doses for the uterus, bladder or rectal cases. Otherwise the capsule form has its disadvantages in producing an action that is too concentrated at the point of contact and the advantage of cross firing is not obtained.

The distance of insertion for radium needles into a malignant growth for the best effect is about two and one-half centimeters apart.

The question of secondary burns from the bare needles, is no longer a question in doubt, as it has been demonstrated by clinical experience that when needles are inserted into moist tissue such as constitute malignant growths, that the film of moisture surrounding the needles is or may perhaps be sufficient to absorb the secondary rays and the destructive beta rays, providing the exposure is not too long.

The length of exposure is governed by the density and vitality of the tissues and the proximity to vital structures. If the tissues are of low vitality or partly broken down or devitalized, sloughing will take place unless the radium dosage is accurately estimated.

It is possible to have needles remain in place in some tissues as long as twenty-four hours, causing retrogression and disappearance of malignant growths, but no destruction by sloughing.

Destruction by sloughing is no longer to be desired since we have learned by clinical experience that our best results are obtained by a different and newer technic, whereby we are able to accomplish total retrogression without destruction of tissue.

If we desire a concentrated action at the point of contact, a capsule of sufficient dosage is used or if a capsule isn't available a sufficient number of needles are grouped together and put into a capsule of brass or other metallic filter and covered with rubber.

Or the needles may be placed side by side in a suitable flat screen covered with rubber and used when a flat plaque is indicated.

Radium needles make it possible to treat malignant lesions more successfully in easy accessible locations than in locations difficult of access. Yet in treating the deeper structures such as any of the abdominal viscera, prostate gland, bladder or rectum, recent experience has demonstrated that malignant disease of these structures may not be entirely hopeless.

In treating carcinoma of the cervix, 75 mg is placed in the cervix screened with one-half millimeter of silver and one millimeter of brass, 50 mg against the cervix or a sufficient number of 10 mg needles to cover the lesion, inserted two and one-half centimeters apart.

These cases are always cross-fired with x-ray for ten minutes, and the radium treatment continued for twelve to sixteen hours.

A gauze pack in the vagina is used for distance screening to protect both the bladder and rectum. Otherwise a resultant fistula might occur from too close proximity with radium.

This treatment is repeated in six weeks and each time the patient comes to the hospital she is allowed to remain six days and in the six days two treatments are given. Treatments are given with the patient in the same position as for a vaginal examination.

The majority of cases are treated without an anesthetic. Usually one-fourth grain of morphin a few minutes before taken into the operating room is sufficient. The total number of milligram hours that is required for each case will average four or five thousand.

In treating fibroids of the uterus radiation almost uniformly gives good results. The submucous type, however, are much more responsive to treatment than the subserous. It is my custom to cross-fire all fibroid cases with the combined method, using x-ray with radium.

There are two important contra-indications for the use of radium in these cases—one is if the tumor is palpable above the symphysis and the other is the presence of a pus tube.

Some tumors are highly resistant, while others are remarkably susceptible to radium and experience shows that those that respond most readily to therapeutic efficiency by diminution in size are usually the cellular and rapidly growing tumors, such as the lympho-sarcomas, the embryonal or anaplastic carcinomas, as teratoid carcinoma of the testes or ovary. These tumors melt away rapidly under radium and if we meet with failure it is due usually to wide dissemination of the disease.

Mammary carcinoma of the rapidly growing local metastases type may yield readily to radium whereas the older tumors that have become fibrous may show very little or no reduction in size—after radiation.

There are two chief reasons for failure of radium treatment in malignant disease. The first and foremost lies in the very nature of carcinoma or sarcoma, that is, in the frequent malignant infiltration of the tissues far beyond the area in which radium is effective, or to which radium can be applied.

The second cause of failure lies in the technic, that is, in the methods of applying radium which are entirely inadequate. Frequently the amount of radium is too small. Fifty to two hundred milligrams are essential in dealing with serious malignant conditions.

The distance into the tissues to which radium rays will effectively penetrate is an open question.

Radium in the vagina will fluoresce a piece of Willemite applied to the abdomen, while photographic plates over the head will be darkened.

This makes a complex problem that is not entirely solved at the present time.

Radium as a post-operative measure is now occupying one of our most important fields. It is, of course, difficult to estimate just how far we can rely on the procedure to prevent a recurrence of a malignant condition but statistics show post operative cases that have had such attention, are remaining well.

Those of us who have been studying the advance made in methods of attack against malignant conditions realize the importance of radium and radium rays and appreciate the accomplishments that have been made during the last five years.

Our combined method of attack is still more

noteworthy, but without our supply of radium we would still have definite limitations.

The treatment of malignant conditions by the combined methods, principally radium and x-ray or radium and surgery or with electrothermic methods has been shown from clinical experience to be sound practice.

The general practitioner or the surgeon, who prefers to use his own particular method to the exclusion of all others in treating malignant conditions, is meeting only with limited success. It is impossible, of course, to obtain brilliant results with a single method of attack and the physician who fails to employ the various methods judiciously combined, is refusing to mark time to the march of scientific progress.

As the reports of the results obtained in the treatment of malignancy by radium multiply from many sources, and as the experience of users of radium widens, it becomes apparent that this form of therapeutics is gradually becoming established on a basis which will guarantee its permanency and its substantial progress.

I believe it is highly important for the interests of radium therapy, that the users of radium, the medical profession, and the public should recognize the fact that radium therapy is fast getting beyond the experimental stage.

RETROBULBAR OPTIC NEURITIS, WITH SPECIAL REFERENCE TO BACILLUS SUBTILIS INFECTIONS*

J. SHELDON CLARK, M. D.

FREEPORT, ILL.

In bringing before this Section the subject of acute retrobulbar neuritis, I am conscious of the fact that I have but little to add to the already rather voluminous literature contributed by others. However, the seeming rarity of the causal factor in a recent case prompts me to record my observations and present them at this time.

That the occurrence of this disease is comparatively rare is generally conceded. That its recognition is doubtless sometimes overlooked, or at least delayed until either spontaneous recovery has taken place or irreparable damage has occurred, is well known and regrettable.

As to etiology, Langenbeck made a study of

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176 cases of retrobulbar neuritis with the following results:

	Cases	Per Cent
Multiple Sclerosis	58	33
Suspected Sclerosis	14	8
Idiopathic	32	18
Lues	13	7
Post Nasal Sinuses	6	3.5
Hemorrhage (Sudden Loss)	5	3
Menstrual Disorders	4	2.3
Pregnancy	3	1.7
Lactation	3	1.7
Diabetes	4	2.3
Traumatism	4	2.3
Articular Rheumatism	1	.6
Etiology Unknown	36	20

While much has been said regarding sinus disease as an etiologic factor in the causation of retrobulbar neuritis, if we will but study the above table, as given in the report attributed to Langenbeck, we will note that sinus disease comes fifth as a casual factor. By this we do not mean to minimize the importance of sinus disease in a given case, but rather cause us to raise the query and search diligently for the cause in every case at hand. One should not forget that his patient may be a hysteric and yet have a disease entity in addition to his hysteria. That although he be luetic, he still may have a retrobulbar neuritis which has no connection with his lues and which may be caused by a post sinus infection, entirely independent of the lues.

It is well known that uncomplicated cases of retrobulbar neuritis tend to clear up. This fact not alone causes some question to arise as to correct diagnosis, but causes reservation in accrediting the therapy used in a given case. There are, however, a goodly percentage of cases which will not be so fortunate and will go on to optic atrophy if something is not done and that at an early date. Most frequently it is the general practitioner who gets to see these cases first. It behooves one to get at these cases early and with energy run down all the possibilities as to etiology.

J. Von der Hoeve, Arch. Opth., 51:210, May, 1922, says as to diagnosis the following: "The diagnosis is less or more difficult according to the nerve disease. It may be choked disc, papillitis, atrophy or retrobulbar neuritis. Choked disc and papillitis, though it is not always easy to differentiate one from the other, are relatively easy to recognize, because the ophthalmoscope reveals in the very beginning that something is amiss with the optic nerve. Diagnosis of atrophy is more difficult, at least in the beginning, but the greatest difficulty is caused by the

most frequent one, retrobulbar neuritis. The patients complain of pain behind the eyes, in the depth of the orbit, especially upon movements of the eyes. The ophthalmoscope is of only little aid. In the beginning we see either nothing abnormal or a little hyperemia of the disk, dark and strongly filled veins, until at last we find the characteristic pallor of the temporal quadrant of the disk; but then, it is too late."

The best early index is given by an examination of the field. There may be annular scotoma or concentric contraction as symptoms, together with signs characteristic of the disease, central scotoma and enlargement of the blind spot. It is at times quite difficult to distinguish decisively between a case of retrobulbar neuritis and an intra-ocular neuritis. The distinction is at times an arbitrary one. Aside from the visual defects, scotomata and the like, many patients complain of pain back of the eyes, deep in the orbit, or of a general frontal pain. Movements of the eye ball cause distress. The picture one gets from an early ophthalmoscopic examination may be quite negative. There may be a slight hyperemia of the disk, with the veins somewhat engorged. Later slight hemorrhages may make their appearance, with temporal pallor and elevation of the disk as high as 2 to 3 diopters. In order to make an early diagnosis we must take advantage of Von der Hoeve's signs of peripapillary scotoma or distinct enlargement of the blind spot, as well as concentric contractions of the fields.

Retrobulbar neuritis as found in soldiers by K. Szymanowsky, Klin. Monatbl. f. Augenh., 62:631, 1919. Reports are given of five cases of a peculiar form of retrobulbar neuritis in which chronicity was an element. The development being gradual, the patients did not report for treatment until weeks or months after the onset of the first symptoms. The relation of retrobulbar neuritis to sinus disease was marked in these cases and as a cause it was indicated that there might be some connection between the inclement weather conditions and lack of shelter incident to war, which would account for the appearance of these otherwise etiologically unexplained cases of retrobulbar neuritis.

H. Woods, Vir. Med. Monthly, 48:69, May, 1921, speaks of the course of the disease and the search for the cause. In endogenous cases he urges us to remember that the eye is a part of the nervous system. Wassermann tests, both of

the blood and spinal fluid, should be done, especially where blood is negative. Another important line of investigation, according to Woods, should be the determination of the blood coefficient for sugar.

J. W. Jervey, *Ann. Otol., Rhin., Laryng.*, 30:976, Dec., 1921, reports a case of monocular retrobulbar neuritis where antral disease was the causative factor, as shown by the fact that the neuritis began to improve immediately after drainage was established.

In a paper entitled "Optic Nerve and Accessory Sinuses," J. Von der Hoeve, *Arch. Ophth.*, 51:210, May, 1922, says: "Every human being in his turn suffers from catarrh of the nose. Nobody rests free from the nuisance, and every time one has it, the inflammation may be spreading to the accessory sinuses of the nose. That this is true we must admit when we recall the number of acute infections of the various sinuses we have all been called upon to treat, especially since the post influenzal days of 1918."

Von der Hoeve speaks of the close relationship of the sinus cavities to the orbit and says that it is a cause for wonderment that there may still be walking around people who have never had any disease of the eye of nasal origin.

It occurred to me to report my case of double retrobulbar neuritis for the reason that there are certain features which appealed to me as being interesting and worthy of recording. In my reading I have found no report of cases having a similar finding bacteriologically.

My case was that of a woman, 42 years old, wife of a physician, who had in the past enjoyed reasonably good health. Never robust in physique. This illness was ushered in with what was regarded as one of her ordinary "colds in the head." A few days later she was seen by a physician and because of a persistent frontal and supra-orbital headache I was called in to determine if there might be some frontal or ethmo-frontal sinusitis. There was no particular nasal discharge, nor could there be any demonstrated by adrenalin shrinkage and the use of the suction. Transillumination of the sinuses was negative. There was some cessation of the pain following the use of suction and shrinkage of the turbinates, but the patient did not feel well. In about one week's time I was again called to see the patient on account of her almost sudden loss of vision in the left eye and somewhat reduced vision in the right eye. Because of our patient's general condition, being extremely nervous, no examination of fields could be made at this time.

In the left eye, ophthalmoscopic examination revealed a nerve head that was in a marked state of edema. This papilledema was of between two and

three diopters, with distended veins, and there could be made out a few minute streaks of hemorrhage in the smaller retinal arteries close to the temporal border of the disk. The temporal half of the disk had the characteristic and well known 'pallor'. In the fellow eye at this time, there was only a suggestion of an involvement. Within 48 hours' time and upon waking in the morning the patient found herself blind in both eyes, with light perception only remaining.

The usual treatment was advised which seems to be common to all in dealing with cases of this sort. Pilocarpine sweats, mercury rubs into the temples, ethmoid drainage as well as spinal drainage was asked for. There was some aversion to the adoption of this treatment and as result counsel was asked for and Dr. George F. Suker was called. Confirmation was made in the diagnosis. Insistence upon hospitalization of the patient, which was concurred in, permitted a more thorough examination and treatment of our patient. X-ray of the head was negative. Blood serum was negative as to Wassermann. Colloidal gold test negative and negative as to tubercle bacilli. The spinal fluid was Wassermann negative, with a cell count of 100. Globulin negative. A gram positive bacillus present, which was identified as *B. subtilis*. The urine was negative. Repeated specimens of the spinal fluid were sent to two laboratories, one of them the State Laboratory at Springfield, and both reported the finding of *B. subtilis*. Care was taken against contamination of the specimen.

It was then learned that our patient had been handling a shipment of nursery stock which had been packed in straw and that this work preceded her first attack of rhinitis by but a few days. This gave us a clue as to how our patient had received her bacillus subtilis infection.

The treatment given was that of pilocarpine hydrochlorate sweats every other day lasting for one hour's time. On alternate days and for three seances, spinal puncture in the lower lumbar region was done and 10 to 20 cc. of spinal fluid withdrawn each time. The fluid was clear in appearance, and under no noticeable pressure. Mercury rubs were given in the temple area. Cyanide of mercury injections were given well back on the eye-ball and these were not repeated until reaction had subsided. Strychnine nitrate in gradually increasing dosage was administered hypodermically. Although intra-nasal operation had been suggested, none was performed. Two days after the institution of this vigorous treatment, the patient was able to distinguish large objects in her room and some improvement in light perception occurred in the left eye. The improvement in the vision continued with perfect return. With her correction she now has 20/20 in each eye.

In looking up the literature of the past three or four years, I ran across but one instance of bacillus subtilis infection which had to do in any way with the eye or the orbital structures. This was by Paul J. Steuber in an article entitled "Intra-ocular infection with an organism

of the bacillus subtilis type" and as reported in the Ohio State M.J., 17:175, Mar., 1921, and in brief was as follows:

"This case brings up the question as to whether all cases reported to be anthrax are really such and has led to interesting observations on the bacillus subtilis. The patient was struck in the eye with a fragment of a cold chisel, the fragment perforating the cornea and passing through the iris. He developed a condition which, on the basis of clinical and bacteriological findings, was diagnosed as anthrax by several physicians who had seen cases of this disease. Anthrax serum was given and the patient finally recovered, but it was necessary to eviscerate the contents of the globe. The pathological diagnosis was hemorrhagic panophthalmitis with detachment of all parts, with very little leucocyte reaction excepting in localized areas.

A study of the organism isolated early in the course of the disease by the Bacteriological Laboratory of the University of Michigan led to further discrimination and isolation, and to the conclusion that the organism was a member of the *B. subtilis* group. Bacteriologically, this organism has certain features very similar to the anthrax bacillus. Clinically, the manifestations are so much in accord with those of an anthrax that those who had seen anthrax previously, corroborated the diagnosis without hesitancy. The subtilis results are very interesting, as they show how this organism, considered to be merely a saprophyte, can act pathologically in a wound. In the interior of the eye the bacillus subtilis increases until after 36 hours, but after 48 hours degeneration sets in and it cannot be found in the vitreous after four days. In cases apparently anthrax, aside from the surgery indicated in the individual case and the use of anti-anthrax serum, an autogenous vaccine is indicated if the offending organism can be isolated."

CONCLUSIONS

While transillumination as well as roentgenography should be made use of early in these cases, yet a negative report of either or both should not deter one in early operation upon infected or closed sinuses.

Diagnosis should be made early. Von der Hoeve's sign should be looked for. The fields should be taken in doubtful cases. As a subjective aid, taken with the other signs and symptoms, one very constant diagnostic point is that the patients complain of retrobulbar pain on moving the eyes. It is therefore by a process of exclusion that we are to arrive at a diagnosis of retrobulbar optic neuritis. As rhinologists and oculists we must ever have in mind the possibility of an ethmoidosphenoiditis as the casual factor.

The bacillus subtilis has been considered non-pathogenic. Our observation in this case would

seem to coincide with other observers and tend to prove that such is not the case, especially as regards retrobulbar optic neuritis.

The low virulence of the organism may in part account for the fact that we had a good recovery, despite the fact that treatment was delayed and the possible good which might have been had from a post-nasal operation. We believe that our patient received benefit from the spinal drainage and through the examination of the fluid the organism was recovered that in our opinion caused the neuritis.

THE SELECTION OF CASES FOR COUNTY SANATORIA*

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The title of this paper was suggested by several letters that were received by the writer in the past several years from Superintendents and Medical Directors of County Tuberculosis Sanatoria about to open asking, "What cases should be admitted on opening our Institution?" And thinking that the question must be a rather vital one, I have presumed to take the time to read this paper.

In clinical work the cases of tuberculosis are usually roughly and more or less accurately classified into : 1. Incipient or early, 2. Moderately advanced, and 3. Advanced cases, depending more upon the general physical condition of the patient than upon the lung pathology or symptoms that the patient presents.

The Glackin Law does not say who shall or shall not enter, but simply says, "All citizens of the County are entitled to the benefits of the Sanatorium, etc.," but it does definitely limit the amount of tax to "not to exceed 2 mills on the dollar," so that, even in the wealthiest Counties it would be impossible to provide a bed for every tuberculosis patient in the County, and it becomes necessary to classify the applicants, to receive some and refuse others, and the problem becomes more and more difficult of solution in inverse ratio to the number of beds available and directly as to the number of applicants for the beds.

The first essential in the Sanatorium treatment is to receive into the institution individ-

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nals that can be benefited by such treatment and to avoid receiving persons who have passed to the stage when relief is not possible, but this rule must be modified at times to suit particular cases.

To limit the work of the sanitorium to caring for incipient and early cases only would defeat a great part of the good work that the institution can do for the population and there is and always will be a demand for admission of advanced cases and even far advanced cases. The field of institutional treatment, though, is very limited in comparison with the whole comprehensive program of tuberculosis therapy, so that in each individual case all the medical, social, legal and public health factors must be carefully evaluated before a case is admitted or rejected and each case must, to a certain extent, be taken on its individual status.

A general rule, however, can be given: Take the cases that can derive the most good from hospitalization considering the sick individual, the family and the community, with the least expenditure of time on the part of the staff and money on the part of the taxpayers. This, of course, means that the early cases that need the rest (and all other essentials of treatment can be reasonably carried out in many homes, but rest, never) should have the preference, as they stay the shortest time, hence more can be taken per bed per year and the percentage of cures is larger, thus elevating the standard of the institution in the estimation of the patients and the community.

However, a chronic or far advanced case may be a menace to a family, to the community, or his symptoms may make institutional care imperative, when a place must be provided.

Frequently County institutions are opened and the favorable class of cases are not as plentiful as they will be later when beds will be at a premium. The taxpayers want to see that the beds are used and at first it is better to fill the beds with all classes of cases, showing that the need was real for the institution and then later the undesirable cases can be eliminated and the cases that cannot be benefited sent home, and the instruction they received will do much in prevention of other cases and the agreeable surprise may await one of seeing a supposedly incurable case improve or get well on sanitorium care. It is not good policy to allow empty beds

or soon the taxpayers will stop levying taxes, salaries will have to be reduced, the nursing staff will lose its efficiency and the morale of the whole place will be depressed. On the other hand, if it becomes necessary to turn away a case or two, especially if the patient is a relative or friend of a County Commissioner, or return a chronic or hopeless case to his home to make room for an early case, the cause of the institution will have been augmented.

The overhead cost per patient must be seriously considered and with a small institution is relatively large, as the food, coal and supplies must be purchased in small quantities, by inexperienced buyers and the local merchants will note the absence of outside competition, feeling that county institutions should purchase in the home market, thus adding to the cost. A small institution cannot pay adequate salaries for a superintendent and medical directors and the work is not of large enough scope to attract men who might make tuberculosis their life work and so the small sanitorium has no place in the training of experienced tuberculosis workers. State Sanitoria should be built, as in the State of Kansas, to replace the inefficient, uneconomical and wasteful County Sanitoria and give facilities for training better physicians and nurses in this work. This would allow the money of the counties to be used for nursing and dispensary clinical work.

Special indications for admission are hemorrhage, abscess, lung surgery, pneumothorax and the psychology of certain patients that need to have specialized treatment.

If enough beds are available, every case could be profitably admitted, studied, diagnosed and educated in personal hygiene and then sent home. The County Sanitorium should be as much a diagnostic and consulting station as it is a therapeutic accessory and physicians should feel free to send, and patients should be glad to go, to a County Sanitorium for a definite diagnosis when tuberculosis is suspected. This is one field that our county institutions have not thoroughly covered and one service not thoroughly sold to the physicians and patients of a community. All doubtful cases should be admitted for study and diagnosis, for many a supposed case of tuberculosis, under hospital diagnostic facilities and special treatment is proven to be a foreign body, lung abscess, empyema, etc.

A valuable point not to be missed in considering the admission of late cases is the aspect of family tuberculosis. Several patients in the same family may have acquired tuberculosis from the same source—mother and child or others living in the same home and same environment and it is essential that these contacts be examined to find the early cases. If the institution cares only for early cases, these late cases will not be uncovered and of course the contacts who are infected and should be examined for suspect cases are also overlooked.

In conclusion, the subject may be summarized as follows:

1. A county institution must gain the confidence of the community.

2. The selection of cases calls for good judgment, considering the pathological, social, financial, and moral side of each case.

3. Early cases should, as a rule, have the preference over moderately advanced and advanced cases.

4. An educated and careful consumptive is not a menace to the community and one duty of a county institution is that of instruction in the prevention of tuberculosis.

5. It is better to have one too many "boarders" than to refuse admittance to cases when beds are empty or overlooking a case that needs the help of the sanatorium.

6. The county sanatorium should be the tuberculosis diagnostic station for its community and all doubtful cases should be studied there.

7. The training of tuberculosis workers is a very essential part of the Sanatorium program.

8. In each particular case the best and most complete service must be rendered, based upon the case alone, regardless of the stage of his particular pulmonary disease, for tuberculosis is not alone a medical disease—it is a social disease and the community phase must be viewed as being as important as the medical phase and should be as thoroughly diagnosed and studied and finally, treated.

VARIABLES TO BE CONSIDERED IN SELECTION OF

CASES FOR SANATORIA

1. *Patient*

- (a) Financial condition
- (b) Stage of disease
- (c) Prognosis
- (d) Age

(e) Special indications

- Hemorrhage
- Abscess
- Surgery
- Pneumothorax

(f) Mental condition of patient

2. *Family*

- (a) Contacts
- (b) Financial status
- (c) Standing in family—father, mother, brother or sister
- (d) Tendencies to tuberculosis
- (e) Social and psychic reaction of case to family

3. *Community*

- (a) Infectivity
- (b) Intelligence in care of sputum, coughing, etc.
- (c) Financial
 - (1) Wage-earner or not
 - (2) Cost of care in Sanatorium vs. home care
 - (3) Overhead of institution
 - (a) County vs. State institution
 - Buying—coal, food, etc.
 - Medical Director cost
 - Training of nurses and physicians
 - Local trading causes added cost
 - Finances diverted from clinical work
 - (4) Taxpayers want to see results
- (d) Prognosis
 - (1) Early cases—least time, most service per bed
 - (2) Late cases—short time
 - (3) Chronic cases—hold up beds
- (e) Esprit de corps of Sanatorium Staff
- (f) Moral obligation to citizens
 - Wage earners to be returned to earning power
 - Mothers to families
 - Optimism produced by cured cases,
 - Psychic effect
 - Decrease in death rate and increased longevity
 - Service to posterity in eliminating tuberculosis deaths
- (g) Diagnosis. Should be diagnostic station for doubtful cases.

RESPONSIBILITY OF THE COUNTY SECRETARY*

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When the County Secretary has performed the duties prescribed in the by-laws of his Society, is he relieved from further responsibility? No. These things should be done, but there are other things that should not be left undone.

The Medical Society should be a guiding star to its county. To be members it should mean that the physicians are ethical and efficient; that they are banded together for their mutual good, to give and take, to teach and learn the things that will help them in their profession. Membership should mean this, not only to the members but to the people of the community. They should know that a physician who is a member of a medical society is not an unlicensed quack or an unscrupulous faker, but that he is honest and progressive and one in whom they may put their trust. When the Secretary has achieved this we may relieve him of responsibility along this line.

The County Medical Society is responsible to the State Medical Society and to the American Medical Association in that it should cooperate with them and keep in touch with their activities.

At the annual meeting of the American Medical Association in St. Louis, 1922, the House of Delegates adopted resolutions asking the county medical societies to make public the fact that their members were ready to make physical examinations of the apparently healthy. They also stated that it was up to the Secretaries to put this movement over.

What have medical societies done along this line? Do they see the advantage of these examinations? Advantage to both physician and patient? The laity are learning that by the detection and removal of slight defects they will escape serious illness and they are glad to avail themselves of these examinations. Surely the physician would prefer to examine a patient in his office at his convenience rather than be called some dark and stormy night to alleviate some acute condition that might have been prevented.

It is neither safe nor wise to underestimate the degree to which the public is informed on the subject of disease prevention. Newspapers

print health columns every day and magazines of all kinds publish articles advocating the prevention of disease. This is not done as missionary work but to meet a public demand.

The trend of the practice of medicine is changing and the physician needs to change with it. The discovery of the cause of many diseases, the finding of the principles of immunology with their effect on the course and termination of disease and the revelation of the fact that some diseases can be prevented easier than they can be cured are the scientific basis of preventive medicine.

One of the greatest lessons taught us by the late War was that disease can be controlled by applied health measures. We were unpleasantly surprised at the number of our young men who were found unfit for service. A very large per cent of the defects were such as might have been prevented by proper health measures. Many were the aftermath of so-called childhood diseases. Perhaps their mothers thought that the sooner the children had the measles, whooping cough and scarlet fever, the better, so that they would be done with it, not realizing that, while the child recovered apparently, there was left a weakness in some part of the body that would develop into a serious or perhaps fatal condition later.

During the War the successful prevention of typhoid dysentery, cholera and smallpox proved the worth of vaccines. The value of prophylaxis against tetanus was realized as never before. Since then, the health departments, federal, state and municipal, have profited by the lessons learned during the war. Hundreds of adults have had physical examinations made and school children have been inspected by the wholesale. Health measures are being taught in the schools. A new field has opened for the county societies and a new responsibility given to the secretaries.

Another very important thing for our secretaries to do is to correct the erroneous idea that "State Medicine" and Public Health are the same thing. However undesirable State Medicine may be, antagonism toward it should not extend to the Department of Public Health, which stands as a friend in all health conditions to everybody in the state. The motto of the Illinois Department of Public Health is "Prevent Disease, Promote Health, and Conserve Life." Its mission is to help physicians accomplish this. It stands ready at all times to come to their assistance

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when called. It helps them in combating epidemics of communicable diseases. It sends trained men to help them in diagnosis of doubtful or puzzling cases—but they *do not treat*.

The Department of Public Health has at the disposal of its physicians, laboratories, sanitary engineers, quarantine officers and specialists on tuberculosis, social hygiene and communicable diseases. It furnishes free antitoxin and vaccines of different kinds, the Schick test and, when so desired, will send someone to demonstrate the technique of its administration.

Many health officials in villages and rural communities are laymen who have had no experience in health or quarantine work. The Department of Public Health instructs them in their duties and familiarizes them with the required rules and regulations so that they may be able to cooperate with and render valuable assistance to the physician.

The closer the physicians keep in touch with the activities of the Department of Public Health the more the physicians will appreciate it. Where they treated a State Health Officer with scant courtesy a few years ago, they now give him the glad hand when he comes, and send for him when he does not come. The more cooperation the Department receives, the more effectively it can perform its mission, the more service it can be to the people and to the physicians.

The general public, in fact the civilized world, has caught a vision of what can be accomplished by the practice of preventive medicine. The medical societies should be at the head of this great movement. If the profession does not assume leadership, other agencies will. If the laity are allowed to lead, "State Medicine" might develop. Under the leadership of medical societies preventive medicine offers one of the greatest boons that civilization has ever known. Secretaries have no greater responsibility today than to see that their societies hold front rank in this great work.

The principles of our Government can be summed up into one word, "Protection." The need of adequate health protection is becoming a generally accepted fact. The latest activity along this line is the organization of "County Health Units." This has already become a reality in some of our down state counties. Invariably the county medical society, through its

secretary, has been a potent factor in organizing these health units.

Let the secretary of the county medical society add to his numerous responsibilities that of bringing about better reciprocity between the Department of Public Health and the medical profession. When each respects and admires the work of the other and extends to each other the hand of good fellowship, then even closer cooperation and more splendid results will follow, to the everlasting credit of each and to the benefit of a world which now, more than ever, needs the best that each can give.

DISCUSSION

DR. R. O. HAWTHORNE (Monticello): Dr. Diehl made a comment about the action that was taken in St. Louis at the American Medical Association meeting,—that the County Medical Society should get back of and give free examination to anybody they didn't find anything wrong with, regardless of their financial condition. Did I understand the Doctor correctly?

DR. HERMAN H. COLE (Springfield): I want to compliment the Doctor on that paper. I think that subject, particularly the co-operation of the County Society with the extra-governmental and departmental health agencies of the county, is a very important matter.

I also feel that, as he said in the first part of his paper, the County Secretary has a great deal to do with the medical situation in the country. I might, if you will pardon me for a moment, quote Sangamon County in the past five years since I have been in Springfield. We began at that time with a society of about 90 members, which was not nearly as many as there should have been at the Society meetings at that time. We had our meeting every two weeks, and at those bi-monthly meetings there was usually a feed at the hotel, of sandwiches and coffee, and in practically every case some out-of-town man gave a paper, or some man whom the most of us were thoroughly familiar with.

The Country records during the three years that practice was in vogue were kept practically not at all. I do not know just why that occurred. I do not think it was due to any particular lack of interest or work on the part of the Secretary at that time—it was simply a matter of no organization of a County Society office.

We had no permanent records, no provisions for printing, no provisions for the outside man who came in except as it was taken up by each individual man. Two years ago we made a rather marked change; Dr. Patton was President at that time. The same policy has been carried out by Dr. Deal this year as President of the Society, with some major changes which I think are of considerable importance. We changed our meeting to once a month; it is about as often as most of the Societies can get a good turn-

out. At that monthly meeting we gave up the feed and devoted the whole evening to medical program; in other words, we dropped all the little discussions which have a good deal of personal element in them and brought only those things before the Society which had a distinct Society element in them. That program was carried out all of last year and our membership jumped perhaps 10 per cent. We got more members into the Society and quite a number of old men who had dropped their membership came back.

At the end of the year we put in a book system—a system of loose leaf secretary's books in which the records of each meeting were put, and we have a record over a period of as many years as we choose to carry it.

At the beginning of this year Dr. Deal and a number of the members got together and made up a plan of clinics and meetings for this year which we called The Sangamon County Clinical Association, which was put up as an entirely separate matter from the Society and afterwards to be linked with it. The essential point in the formation of that society was that the medical part of the program of the Sangamon County Medical Society was to be held during the day with the Sangamon County meeting in the evening. That clinic, I believe, has been the biggest thing the Sangamon County Medical Society has put over, and I think the credit is due to Dr. Don Deal of this city.

We made the provision in the organization of the clinic that the society should be divided into two parts. Arbitrarily we divided it at the M's, and we found that the doctors whose names began with the letter before M gave the first all day clinic, with the second group coming on the following month; this gave two months between each group. That clinic starts at 9 o'clock in the morning, with an entire day's program, take the morning at St. John's Hospital and the afternoon at Springfield Hospital, or vice versa, a lunch at the hospital—makes no difference which one—we have a whole program of clinics (that is, the real thing, not papers); patients are brought in and shown; the morning we spend in operative surgery; afternoons we have medical clinics and results of operations; in the evening we have two papers, one by an outside physician, usually a pretty good paper by a well known man; then we usually have some sort of a paper by a layman on some subject which touches on public health or the medical profession from the legal or other standpoint.

Our membership this year has jumped to nearly 120 as a result of this. We have only had four clinics and in those clinics we have had an average of between 10 and 20 outside men in the city for the whole day.

The biggest thing that the Association has done for us is to show the local men what they can do. I voice the general opinion, I think, when I say it has been a considerable surprise to every one of us that we have had men in our midst who could do things that none of us knew they could do. We have seen a number of remarkable operations and results of operations. I think some of them cannot be duplicated,

even by the best surgeons in the East. I feel this clinic has been one of the best things that Sangamon County has ever put over, and I make it as a suggestion that anyone interested in the manner of that clinic, if they care to write to Dr. Deal or myself, then can have a copy of the organization of it. I feel that anyone else who has a society would be doing the Society and the community a favor if they copy that program, and we would be very glad to help you in any way we can.

It simply illustrates the difference in the attitude that the profession will take toward the County Medical Society when they get something that really is given out. Some of the men on the program have spent weeks in preparing lantern slides and papers, and you all know the man who prepares the paper is the man who gets the good of it. I feel the Medical Profession here has gained something very distinctly in the organization of this clinic.

DR. J. S. TEMPLETON, Pinckneyville: That report was very interesting and I think many of you have received copies of the clinics as they have given them from time to time.

Of course, that entails money and another well organized force to get it out, and some of us especially have a hard time to get the \$5 for the State dues. We will hear more about that later, I am sure.

DR. HAROLD SWANBERG, Quincy: If it is permissible I would like to ask a question of Dr. Cole.

In Adams County we have made several attempts to put over a monthly clinical program as outlined by Dr. Cole. The difficulty as we have found it is the lack of interest in the thing among the men themselves. There is always a small group willing, but men who do not do much referred work seem prejudiced against it, and especially the country practitioner. They do not see why they should be taxed for something that they will not be distinctly benefited by and in which they do not care to participate.

I would like to know more about the monthly clinical programs because we are going to make another attempt to put something over like that in our county and intend to keep at it until we succeed. I would like to know how to overcome the above arguments, how the finances of such a program are met, and whether or not separate By-Laws have been drawn up or whether the clinical meeting is an intimate part of the County Medical Society.

DR. C. G. APPELLE, Champaign: Dr. Diehl's paper is so magnificent that I was wondering if I could ever produce a paper of that sort.

Dr. Cole turned the discussion into a sort of mutual admiration society, and I was very much impressed with what he had to say, because I think everywhere we are trying to have more get-together meetings and better mutual understanding, more exchange of ideas, and I think he is correct when he says we find out that our neighbors next door have not been given credit for what they know.

Over in Champaign County we assess the great rate of \$10, and of course we donate to the State Medical Society the usual quota and try to have enough money

to have at least one large meeting. It has been the practice to have a biennial meeting with the Vermilion County Medical Society; one year one entertains and the next year the reverse. Those meetings are always very well attended, and included on the program is a speaker from out of town, of some considerable note. It has always been very interesting, and this year we are planning on making the meeting even larger. We are planning on having a speaker of National note or even International, and we will probably attempt to stage a so-called clinic there. I see no reason why we couldn't do it. I might say here that, imagining that you have to live in Springfield or Bloomington or Cairo or St. Louis or Chicago in order to stage a clinic or give a proper presentation of a case is all wrong.

This applies to even the smaller country Societies thinking they are missing the opportunity of their lives if they don't even prepare papers. They have to write out of a book, a lot of them, certainly, but they can weave in a lot of their own experiences.

On May 27, Champaign County Medical Society has obligated itself to entertain the President of the American Medical Association. The President of the American Medical Association has some friends in Champaign he is coming to visit, and so we thought we ought to do something to show our appreciation of his honorable position. We are planning a banquet providing plates for about 250—it is an entirely free donation—and we have arranged to have certain notables throughout the state as guests of honor, and the rest of the rabble, like Hawthorne and myself, down below.

DR. HERMAN H. COLE: All I wanted to say was, this is not a Springfield matter at all. It is a County matter; it goes to a number of the towns that are adjoining Springfield, smaller towns, but have just as good men as Springfield; some of our best cases have come from a so-called country practitioner.

Those men have participated in the presentation of cases in a percentage way even better than Springfield men. One or two very unusual cases we have had shown here were from out of town; that is, from the districts where the unusual things arise.

Financially, I don't know just how big a society would have to be in order to make such a thing possible, but I do know that last year we finished on the \$10 basis; that covers not only the State Society, but the local Society as well, and we finished the year with \$400 in the treasury, and this year I think it will probably be \$800 or \$900. So, financially, it hasn't been a great burden, and we will have enough in the treasury to help quite a little.

It costs us about \$10 a month to operate the clinics—that is the \$10 toward the programs, etc., as an average, and financing it hasn't been a difficult matter.

DR. C. H. DIEHL, Effingham, Ill. (closing the discussion): It seems to be agreed that we should do all we can to cooperate; the Medical Society wants to cooperate with the Department of Public Health and they want to cooperate with the Medical Society. We know this is a time of organization and cooperation.

Dr. Hawthorne, I believe, misunderstood me at first;

he thought that the clinics recommended by the American Medical Association were free and said if they were free they would be looked upon as quackery. I did not mention anything about their being free. The Medical profession is always ready to do their part in any community, always ready to help the poor, but I feel that in many cases the profession is not paid enough for what they do.

I don't know that there was any question brought up for discussion. I am glad you all agreed upon this without any controversy.

PEPTIC ULCER COMPLICATING PULMONARY TUBERCULOSIS*

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CHICAGO

The association of gastric symptoms in early and advanced pulmonary tuberculosis is well known to clinicians. It has been generally accepted that the gastric disturbances are not due to local changes in the stomach. Thus Osler¹ says "while tuberculous ulcer of the stomach is rare, ulceration may occur as an accidental complication—interstitial and parenchymatous changes in the mucosa are common and lead to atrophy but these cannot always be connected with the symptoms and they may be found when not expected. On the other hand when gastric symptoms are pronounced the mucosa may show little change."

The gastric symptoms often described as an early dyspepsia or anorexia may continue and are often encountered as a severe condition with epigastric pain, nausea and vomiting. Fishberg² says of the gastric symptoms in advanced cases of pulmonary tuberculosis—"at times we meet with patients who retain an excellent appetite to the end and cases of bulimia are not uncommon. Pain after eating, pyrosis, belching, are very common and vomiting is at times a prominent symptom. But while the emetic cough may be encountered at this stage it is not of this type. They simply vomit because of the gastritis and dilatation. This type of vomiting is preceded by nausea and belching." This picture on closer analysis presents a striking similarity to that seen in gastric and duodenal ulcer. The possibility that such lesions may

*Read before the Chicago Tuberculosis Society, April 10, 1924.

account for the gastric symptomatology in certain cases of pulmonary tuberculosis occurred to me. Through the co-operation of the tuberculosis department fifty cases of pulmonary tuberculosis with severe gastric symptoms were referred for study. Of these, six were considered as having a definite ulcer story of which four were positively diagnosed as duodenal ulcer and two as suspect peptic ulcer.

CASE REPORTS.

Case 1. M. L., male, was first seen in Michael Reese Medical Dispensary in 1916. Complained of cough, loss of appetite. Physical findings showed evidence of bilateral pulmonary tuberculosis. The sputum was positive. Patient was transferred to Oak Forest Sanitarium. From August, 1919, to the latter part of 1921 he was again treated at the Michael Reese Dispensary for his pulmonary condition. In May, 1922, patient was referred from the tuberculosis department to the gastro-intestinal clinic. The story obtained was that about June, 1922, he was suddenly seized with abdominal pain, located over the epigastrium. He immediately vomited about three glasses of dark blood and was soon after taken to the Cook County Hospital. He remained there for a period of two weeks and received treatment which consisted of milk, cream and powders. He then went home; felt better for a week and then noticed definite epigastric pain and burning about two hours after every meal. The pain occurred regularly daily and was so severe that he had been abstaining from all food. Physical examination revealed a poorly nourished individual. The lungs showed definite evidence of bilateral pulmonary tuberculosis. Locally the abdomen was extremely tender in the epigastrium. The liver and spleen were negative. Laboratory examination showed no striking changes. The Ewald meal—free acid 24 and total of 84. Blood was not found in the stomach contents nor in stool on first examination but was found two months after admission to the dispensary. An X-ray examination showed a constant duodenal defect. The patient was placed under ulcer management and showed relief of symptoms. After a period of two months he complained of severe night pain. He was sent to Michael Reese Hospital where he was kept under treatment for gastric ulcer and the findings of the dispensary clinic confirmed.

Case 2. J. W., male, aged 50, first admitted to General Medical Clinic in September, 1916, complaining of epigastric pains and severe "belt pain." No diagnosis was made and the patient returned again with similar complaint in January, 1921. In July, 1923, patient returned to the tuberculosis clinic complaining that he had been ailing for the past three years and gave a history of severe pulmonary hemorrhage. He also complained of coughs, night-sweats, hoarseness, weakness, loss in weight and stated that he occasionally had stomach trouble. Physical examination revealed a poorly nourished man who showed a bilateral involv-

ment of the upper lobes with many diffuse rales and impaired apical resonance. Sputum was negative for tubercle bacilli. He was referred to the gastro-intestinal clinic because of persistent epigastric pain and inability to take food. The story now obtained was that he had pain in the epigastrium which came regularly two or three hours after meals, accompanied with belching and at times vomiting. Cough was not related to vomiting. He had had this condition for the past nine years. It occurred at intervals of five or six months, then was relieved, and then the symptoms recurred. At the present time he has the same complaint as previously. He has no night pain, has lost weight and feels well on a soft bland diet. The physical examination confirmed the findings of the tuberculosis clinic. The abdominal findings were localized to tenderness in the epigastrium. Ewald meal—free HCl 31—total 46. Stools showed a trace of blood. Fluoroscopic ex-



Fig. 1, Case 2, Showing Defective Duodenal Bulb.

amination revealed bilateral apical involvement. Fluoroscopic of stomach revealed a definite duodenal defect. Diagnosis, duodenal ulcer.

Case 3. A. F., male, admitted to Tuberculosis Dispensary, December 14, 1922, complained of cough, expectoration, loss of weight and weakness. He had no other complaints except "stomach trouble" and stated he had had stomach trouble seven years previously. Physical findings were those of bilateral pulmonary tuberculosis and patient was referred to the Winfield Tuberculosis Sanitarium December 23, 1922. Five months later he was referred to the gastro-intestinal clinic where the following history was obtained. He had been ill with "stomach trouble" periodically for the past five years and had complained of pain across the upper abdomen, diarrhea and anorexia. At the time of admission to the gastro-intestinal clinic he had complained of cramp-like pain about one hour after breakfast, lunch and supper. There was no nausea, no loss of weight and no jaundice. The pain had begun

in the right upper abdomen and traversed to left side. Occasionally he had several stools a day. Physical examination showed a bilateral apical involvement. The colon and sigmoid were tender on palpation. Laboratory studies revealed: Ewald—Free HCl 24.3, T. 45.9, fluoroscopic of gastro-intestinal tract showed a definitely deformed duodenal bulb. Diagnosis, duodenal ulcer.

Case 4. A. S., female, aged 40 years, first seen in gastro-intestinal clinic June, 1922. About 1910 the patient had a severe "grippe" which did not clear up. For two years thereafter she states she was under observation at the Phipps Institute for Tuberculosis and received treatments with tuberculin. She says her sputum has never been positive. When admitted to

dispensary with the tentative diagnosis of gastric ulcer. She was seen constantly until September, 1922, and improved on ulcer management. January, 1923, the patient returned to the dispensary with recurrence of the symptoms but this time she complained of more severe epigastric distress after meals. She again gave a history of vomiting blood, also pain in the gall-bladder region. She was kept under observation in the dispensary for a period of about three months on ulcer management. In September, 1923—nine months later—she appeared with a story of epigastric distress after meals, belching, pain after eating. Transferred to the Michael Reese Hospital, where a similar diagnosis of duodenal ulcer was made. X-ray plates show a constant duodenal defect. Laboratory study—Ewald Amt. 158 cc., free acid 24—total 74.

In addition to these cases reported we have records of two cases of pulmonary tuberculosis with a typical history of gastric ulcer. A positive diagnosis of ulcer, however, is withheld principally because we were unable to find x-ray confirmation of our clinical opinion.

DISCUSSION

Gastro-enterologists have repeatedly stressed the importance of a careful history in the diagnosis of gastric or duodenal ulcer. Characteristic of ulcer is a periodic recurrence of the gastric distress over a period of years, a distress after food intake, yet relieved by alkalies or soft food. A careful inquiry into the story of a gastric discomfort in a tuberculosis patient may serve to elicit such a picture. In all the cases presented as ulcer in this study, a careful study of the history showed an almost characteristic picture.

Tuberculosis individuals, however, are so prone to develop many neuroses that the clinician must be on guard to exclude these in the diagnosis. Dispensary patients particularly exhibit a train of gastric symptoms which may simulate ulcer, yet which upon careful analysis together with the social service workers may be found to be "reactions" to individual social problems. It is because of such factors which may complicate the diagnosis that we have rather emphasized the importance of fluoroscopic and x-ray findings in the positive diagnosis. Of the four cases presented as positive ulcer, we have in addition to the positive x-ray findings a typical story and clinical picture in each instance. Two other cases which gave typical story of ulcer showed no positive x-ray findings. It is recognized that x-ray evidence is not to be considered as the sole criterion of the presence or absence of ulcer. Clinic-



Fig. 2, Case 2, Bilateral Pulmonary Tuberculosis.

the gastro-intestinal clinic she complained of severe epigastric pain, and "burning" after eating, shortness of breath and weakness. About three weeks previously the patient suddenly vomited about two glassfuls of bright red blood and felt weak. Five years previously the patient also vomited a great quantity of blood, felt weak and passed tarry stools. She was admitted to the Hebrew Hospital of Brooklyn. During the entire period of five years she has had no complaints except occasional fullness in the epigastrium. For relief she has habitually taken sodium bicarbonate. She has found that she is much more comfortable on a soft diet. Physical examination, June, 1922, revealed a dyspneic, anemic woman about 40 years old. The lungs showed impaired resonance over left upper lobe and many fine rales. There was evidence of a right sided pleurisy. Abdominal findings were negative. Patient refused hospitalization but was kept under observation and treatment at the

ally and therapeutically one must consider such cases as ulcer. It is our opinion that the practitioner will do well to follow strict ulcer therapy in all cases of tuberculosis which present a story simulating ulcer.

The value of gastric analysis as an aid in the diagnosis of gastric ulcer is being very much questioned in view of the variety of results obtained. The analyses of gastric secretion in pulmonary tuberculosis have yielded such varying figures that it is questionable how much diagnostic importance can be attached to hyperacidity as a diagnostic aid in ulcer. Thus Fox quotes Fenwick³ who found hyperacidity in 56 per cent of 200 cases. Einhorn⁴ found normal secretion in 5 cases, hypersecretion in 5 and subacidity in 5. Büger⁵ found in moderate cases the secretion normal in 33 per cent, reduced in 60 per cent and absent in 6.6 per cent. Croner⁶ studied thirty-six cases and found the total acid varied from 21-80 except in two cases where there was a complete failure. Haym reports that of 80 cases, 15 showed hyperacidity and 33 hypoacidity. Mohler⁷ and Funk as a result of studies by means of Rehfuess fractional method conclude that they do not believe that there is an irritative stage giving rise to hyperacidity. They are of the opinion that the gastric disorder is due to a disease of the mucosa. In the four cases presented, the degree of free and total acidity when examined for each case shows no variation from the normal range. However, it is a striking feature that the acidity was higher in these cases in which a positive diagnosis of ulcer was reached and in one of the cases of suspected ulcer, than in 12 other cases of pulmonary tuberculosis with gastric symptoms in which the diagnosis of ulcer was not made. (See Table.)

Blood in the stomach contents was noted in one of the cases reported and in two cases a history of vomiting of blood was obtained.

While gastric hemorrhage is important in diagnosis of ulcer one must exclude the lungs as the source of the blood. This may at times be very difficult, particularly if the patient is not seen at the time of the hemorrhage. Where a reliable and intelligent history is available the problem is not difficult for in such cases a story of gastric discomfort—the dark brown blood point to gastric hemorrhage; if further a story or evidence of tarry stools is obtained, gastric ulcer is also more certain. In two cases we have such findings.

Boas⁸ quotes Struppler as speaking of the possibility of making a diagnosis of tuberculous ulcer of the stomach in an individual with pulmonary tuberculosis who suddenly develops exquisite gastric symptoms, vomiting of blood, belching and epigastric pain. The first case, M. L., presents a picture similar to this.

Attention is also directed to the recent observations of Schwatt⁹ who has recorded duodenal ulcers postmortem in tuberculosis of the intestines. He does not state whether these are simple or tuberculous ulcers. This report should lend weight to our clinical observations, because of the changes in our conception as to the relative frequency of duodenal and gastric ulcer. At present the frequency of duodenal ulcer is recognized. May we not assume that some of the patients with pulmonary tuberculosis who present characteristic symptoms of ulcer, are actually suffering from duodenal ulcer, which may or may not be tuberculous in character?

The present study is of interest also as suggesting clinical evidence for the etiology of chronic gastric ulcer. In 1912 Rosles¹⁰ called attention to the fact that peptic ulcer was not a disease per se, but a part of systemic disease and supported his opinion by means of post mortem studies. Ivy¹¹ has shown that the ideal conditions for the experimental production of a chronic gastric ulcer in animals depends on, 1. a temporary lowered body resistance; and 2. a temporary pathologic mucous membrane manifested by hypoacidity or achylia. Doctor Ivy found that it was possible to delay the healing of acute lesions of the gastric mucosa in animals which were diseased or cachectic, and which showed no free acid in their gastric juice. In case of pulmonary tuberculosis, we have duplications of the conditions set forth by Ivy as conducive to the formation of chronic ulcer. An analysis of our series of cases show that in two patients gastric symptoms proceeded the pulmonary lesions, and subsequently the gastric symptoms recurred and persisted. It is not of great importance whether gastric symptomatology preceding the clinical evidence of pulmonary lesions, is due to a tuberculous toxemia or a definite lesion of the mucosa. Assuming a pre-existing erosion of ulceration of the gastric mucosa from whatever cause, the advent or association of a pulmonary tuberculosis may be considered as the reason for the delay in healing of

such a lesion. It is further conceivable that individuals with tuberculosis may suffer the same type of infections, focal or otherwise and be subjected therefore to the same possibilities of peptic ulcer as any other individual.

SUMMARY

1. Four cases of peptic ulcer complicating pulmonary tuberculosis are reported.
2. Attention is directed to the importance of a careful analysis of the history in all cases of pulmonary tuberculosis with chronic gastric symptoms.
3. The frequency of ulcer in this series of cases suggests that gastro-intestinal symptoms associated with pulmonary tuberculosis, should be differentiated from a complicating peptic ulcer.
4. Cases simulating ulcer should be placed on medical ulcer therapy.
5. The suggestion is offered that tuberculosis may not only predispose an individual to peptic ulcer, but that such ulcers when formed are more likely to become chronic.

I wish to thank Doctor Leon Bloch for his suggestions and criticisms in the presentation of these cases.

25 E. Washington St.

TABLE			Diagnosis
Case	Free Acid	Total Acid	
C	15	36	Pulm. T. B.
D	22	74	Colitis
E	7	16	Pulm. T. B.
F	70	106	Constipation
G	13	35	Healed Pulm. T. B.
H	4	56	Spastic Constipation
I	0	20	Pulm. T. B.
J	0	10	Suspect Ulcer
K	0	10	Pulm. T. B.
L	3	20	Spastic Constipation
M	11	42	Pulm. T. B.
N	12	23	No diagnosis
O	18	34	Pulm. T. B.
P	18	36	Constipation
Q	24	84	Pulm. T. B.
R	31	46	Ulcer Duodenal
S	24	45	Pulm. T. B.
T	24	74	Ulcer Duodenal
U			Pulm. T. B.
V			Colitis
W			Ulcer Duodenal
X			Pulm. T. B.
Y			Ulcer Duodenal
Z			Pulm. T. B.
			Ulcer Duodenal

BIBLIOGRAPHY

1. Osler: The Principles and Practice of Medicine, 8th Ed. 1914.
2. Fishberg: Pulmonary Tuberculosis, 1919, p. 225.
3. Loc. cit. Klebs. Tuberculosis.
4. Einhorn: Diseases of Stomach, 1911, 5th Ed.
5. Bueger: Deutch. Med. Woch. 1889, XV, 269.

6. Croner: Deutch. Med. Woch. 1898, XXIV, 757.
7. Mohler and Funk: Am. Jour. Med. Scie., Vol. CLII, 1916, p. 335.
8. Boas: Diag. n. Therap. der magenkrankheiten Liep., 1920.
9. Schwatt: Am. Rev. of Tuberculosis. Vol. 8, Sept., 1923.
10. Rosles: Quoted by Boas.
11. Ivy, A. C. Arch. Int. Med. 25, 6, 1920, J. Am. Med. Assn., 647, 1920, p. 1543.

MEDICO-LEGAL VALUE OF X-RAY DIAGNOSIS IN FRACTURES*

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It is hardly necessary to dwell on the value of x-rays in the diagnosis of fractures and dislocations for it is so obvious. Yet some physicians even in this enlightened day still persist in "taking a chance" in their fracture cases and seldom have an x-ray made which can be compared to those who still rely on using a candle for illumination when electric current is available. Insurance companies in compensation cases are continually urging physicians to be sure to have x-rays made of all suspected fractures. *An x-ray in a fracture case is one of the best preventives for a mal-practice suit. In fact it has been repeatedly established by courts in recent years that the failure of the physician to have an x-ray made in a fracture is considered evidence of negligence.* In other words, an x-ray examination in a fracture case is considered the ordinary care and skill every physician should give his patient.

While the percentage of mal-practice suits based upon bad results in fractures is not known it probably forms the basis of more suits than any other condition. Practically all this could be avoided by the judicious use of the x-rays in these cases. The expense of x-ray examinations in fractures has been so greatly reduced in recent years because of more efficient apparatus, etc., that the method is now within the reach of nearly everyone. The only safe plan for the physician is to insist upon an x-ray in every fracture case and if the patient refuses to consent to the examination the blame then rests upon the patient and not the physician. In fracture cases however, it is very important to be sure to have a roentgenogram taken after the re-

*Read before the Pike County Medical Society, Pittsfield Ill., April 24, 1924.

duction has been made and the splints applied.

The following legal opinions, recently rendered in fracture and dislocation cases, may be of interest to the general practitioner:

The following case was decided in favor of the plaintiff in the Supreme Court of Minnesota: "The plaintiff fractured both bones of his right leg a few inches above the ankle. He was taken to a hospital and his employer called the defendant, who attended him. Immediately, a cast was placed on the leg by the defendant, who attended the plaintiff for about two months, when the last cast was removed. Then, and at a previous time when the leg was bared, the plaintiff called the defendant's attention to a lump at the place of fracture, but was assured that it would disappear within two years. The plaintiff was not satisfied, and complained to his employer, who sent him to another physician. The latter advised an immediate operation by breaking and resetting the fractures. This was done, and in about six months thereafter there was a serviceable leg. The evidence indicated that the fracture of the tibia was oblique. Good surgery required care in so setting and holding the bone that the broken ends would be likely to remain in apposition. *Negligence in respect thereto was charged against the defendant, particularly in that he took no roentgenograms to aid in the diagnosis of the fracture or in ascertaining its condition during the curative process; he did not make use of a fracture box; the casts put on did not extend above the knee, and he did not use extension weights. The plaintiff recovered a verdict against the defendant for \$3,500 which by the plaintiff's consent was reduced to \$1,800 as the alternative of having a new trial granted.*"¹

The following case was decided in favor of the plaintiff in the Court of Appeals of Kentucky: "In affirming a judgment for \$4,000 damages in favor of the plaintiff the court stated that he sustained a simple backward dislocation of his right elbow joint. He called the defendant, who arrived within an hour and a quarter, to take charge of the case. An anesthetic was administered, and it was thought reduction was made. No roentgenogram was made at the instance of the defendant, but the plaintiff had one made about a month after the injury, which showed that the dislocation was not reduced. An anesthetic was administered, and three physicians

with a nurse manipulated the arm and resorted to and applied the well-recognized and known methods usually employed to produce success. About two weeks later, the plaintiff had an operation performed by another physician which left but little motion in the joint, and partially paralyzed fingers, although the operation was not at all criticized. The defendant contended that he was not negligent in failing properly to diagnose the case, or in failing to reduce the dislocation on his first visit on account of the swollen condition, but that such was the condition was contradicted, and necessarily formed an issue for the determination of the injury. *One could not read the record without being forced to the conclusion that the defendant was negligent in at least the one particular of not sooner making a roentgenogram of the elbow so as to enable him better to treat it thereafter.*"²

A few years ago in England one of the higher courts affirmed a judgment against a physician for \$7,500 in a fracture case. In this case the patient sustained a hip fracture and was removed to a hospital. An x-ray examination was contemplated but the hospital apparatus was out of order at the time. Under the circumstances the hip was treated as well as could be but resulted in considerable deformity, which formed the basis of the suit. The plaintiff emphasized that no x-ray had been made and the court in deciding against the defendant did so largely on the ground that the defendant failed to remove the patient to another hospital in the same city where the x-ray apparatus was in good running order, so an x-ray examination could have been made.

Numbers of other instances could be sighted where the failure of the physician to have an x-ray examination made has formed the chief basis for a lawsuit. However, the above few cases are enough to warn the physician to ever be on his guard in his fracture work and to insist upon a roentgen examination in every case in which the least doubt is present as to whether or not a fracture is present. Such a plan is the best possible insurance against mal-practice suits in fracture work.

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BIBLIOGRAPHY

1. J. A. M. A. 80: 1095, April 14, 1923.
2. J. A. M. A. 81: 327, July 28, 1923.

A REVIEW OF THYROGLOSSAL DUCT ANOMALIES WITH A REPORT OF THREE CASES

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In presenting a case of persistent thyroglossal duct before a clinic I was impressed with the fact that although the subject is covered in available medical literature such cases are relatively rare and an occasional review may sharpen our diagnostic sense.

CASES

No. 1. A young man 23 years of age presented himself for examination, complaining that his tongue felt very thick and stiff, that he had developed a very bitter taste in his mouth, and that he had a "hole" in his neck from which came "yellow, stringy pus." He

evidences of its appearance in the mouth. Roentgenograms were then taken which revealed a completely patent thyroglossal duct with central dilatation as shown in the accompanying diagram.

Case 2. A boy thirteen years of age, of average stature, had a swelling at about the location of the isthmus of the thyroid which exuded a clear mucoid substance from time to time, gradually subsiding after each recurrence. At a point about three centimeters above the suprasternal notch in the middle was located a small fistula which according to the mother had been present since birth. There was no drainage at the time of the examination but immediately to the right of this region was a small puckering scar which moved upward upon swallowing or upon protrusion of the tongue. The thyroid was not enlarged and there was no palpable mass. The tract was subsequently resected only to have a recurrence of the fistula three months after the resection.

Case 3. A man twenty-nine years of age complained of a swelling in the midline of the neck just below the hyoid bone, first noticed four months previously. It was associated with some difficulty in swallowing. He had been told that the tumor was a "swollen sweat gland" and had paid no more attention to it until two weeks before coming in when the tumor suddenly increased in size from one to two centimeters and began to exude a mucoid substance. At examination he presented a painless swelling in the middle of the neck just below the hyoid bone, and fixed to the deeper structures so that it moved with deglutition. It was not accompanied by inflammatory signs. The foramen caecum was abnormally prominent. A satisfactory resection was accomplished after preliminary injection with methylene blue solution.

These cases, one with a high cystic remnant, one with a low fistulous remnant, and one with the completely patent duct, make a review of the embryological considerations of considerable interest. Very early in fetal life the middle lobe of the thyroid gland arises from a sinking of the epithelium of the anterior pharyngeal wall in the region where the anterior bud or tuberculum impar meets the two posterior buds which together give origin to the base of the tongue. From this site the invaginated epithelium continues progressively downward to its normal middle lobe location, thus forming a long epithelial lined tube of small calibre, the thyroglossal duct, whose beginning on the dorsum of the tongue is permanently marked by the foramen caecum, a small crater at the apex of the V formed by the papillae circumvallatae. The thyroglossal duct therefore in the embryo runs from the foramen caecum in the midline of the neck, through or behind the site of the future hyoid bone. This duct is however a very early

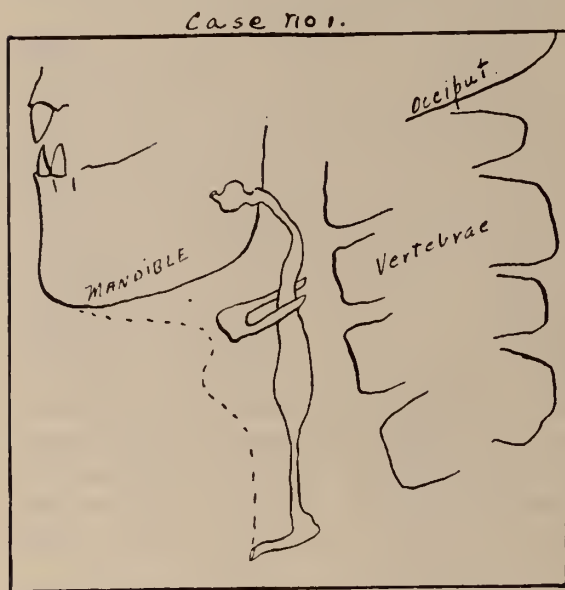


Fig. 1.—Diagram of roentgenogram findings after injection of barium solution showing the origin of the tube at the foramen caecum, the passage between the rami of the hyoid bone, the dilatation from retention of secretion, and the fistulous exit on the neck.

had a chronic suppurative otitis media and had decided that he had developed an abscess in his neck from it. Four centimeters above the suprasternal notch and one centimeter to the right of the midline was the opening of a fistulous tract. Upon protrusion of the tongue or in swallowing this opening was drawn upward as if by a cord. Massage upward of the tract accentuated the bitter taste, and downward massage yielded a few drops of yellowish, mucoid secretion. There were no signs of active inflammation.

Under the direction of a competent roentgenologist a barium solution was injected into the external opening under a slight pressure until there were positive

structure which forms and loses its continuity normally in about four and one-half weeks so that by the time the cartilage of the hyoid bone is developed in the fifth week the duct has disappeared. If the duct fails to obliterate in any portion, that portion which remains may become dilated and form a cyst. If the cyst ruptures externally a fistula will result. These cysts and fistulae are always in the midline of the neck. The lingual part of the duct may remain open throughout life as a very fine little tract even extending 2.5 centimeters to the hyoid bone. Cysts and fistulae may lie above or below the hyoid bone, occasionally over it, and rarely the entire tract may persist. Both cysts and fistulae are usually noticed in childhood, less frequently at puberty, and seldom after thirty. The cysts increase slowly in size, usually painlessly, and without signs of inflammation. Pain may result in thyroglossal duct fistula if there is retention of the mucoid secretion from scabbing of the orifice. Occasionally severe or even fatal infection of the tract may result. Usual complaints are: slight pain, inconvenience from the presence of the tumor, mental unrest from the development and presence of an undiagnosed fistula, obstinate cough, bitter taste, or difficulty in swallowing. Anomalies of the thyroglossal duct are not particularly uncommon as evidenced by the fact that 28 per cent. of the postmortem examinations in a large clinic where these anomalies were particularly looked for, revealed some remains of the primitive duct. However, variations of sufficient consequence to give clinical symptoms are quite uncommon.

Suprahyoid cysts are lined with stratified squamous epithelium while those arising lower in the tract are lined by columnar epithelium, occasionally ciliated. When the upper part of the duct fails to disappear it usually lies close to the posterior surface of the hyoid bone and may even pass through it, which explains the reported finding of thyroid tissue in the body of the hyoid bone. Traces of thyroid tissue may be found at any level along the tract or even as an aggregation of glandular tissue at the base of the tongue, so that theoretically at least, all of the thyroid tissue of the body may be collected here without descent having taken place. The only remnant may be a processus pyramidalis, a ductus lingualis, or a simple fibrous cord.

The diagnosis is usually easy. Branchial cysts are located laterally, and fistulae when present usually open along the anterior border of the sterno-mastoid muscle. Bursal cysts about the hyoid bone or the thyroid cartilage, sebaceous cysts, submental adenitis, simple abscess, sinuses of tubercular processes, lipoma, and ranula may occasionally have to be considered.

The treatment is usually complicated. In the case with the completely patent tract the following procedure was followed with a full measure of success. Successful surgical procedure was quite out of the question. Bismuth paste was used for a time without any effect except causing further difficulty in swallowing. The tract was next thoroughly cleansed by irrigating with sterile salt solution from below, and a 10 per cent. solution of silver nitrate injected. This was somewhat painful but not extremely painful. This injection was repeated in one week. All symptoms gradually subsided with no signs of recurrence within one year. Complete excision is best and most effective but very frequently inadvisable.

ACROMEGALY—A DEFECT OF DEVELOPMENT

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Following the discovery of a previously undiagnosed case of acromegaly in my locality, complicated with numerous anatomical abnormalities, I was tempted to look up the more recent literature on the subject. In this particular case there occurred so many defects of development that I could not help considering the acromegaly from the standpoint of a possible defect.

Regarding the etiology of this disease, Krumhaar¹ probably adequately sums up the present conception when he says, "The theory that acromegaly is due to (or at least follows) hyperfunction of the anterior lobe, after ossification of the epiphyses, as expressed by an increase of acidophil cells, is supported by a majority of the cases in literature. The increase of acidophil cells may be hyperplasia of a normal lobe or adenomatous."

The case in question came to me with complaints leading to a diagnosis of cholelithiasis, left sided inguinal hernia, left sided hydrocele

and varicocele, which conditions were remedied surgically. In 1915 he had had a right sided inguinal hernia repaired and in 1920 a hemorrhoidectomy. He is an adult male, 51 years of age, who has had the ordinary diseases of childhood but never any severe illness. Prior to 29 years of age his health was good, with the exception of an occasional spell with his stomach, accompanied with pain and vomiting. For the past ten to fifteen years he has been troubled with severe headaches. Stomach trouble and headaches seem to have been prevalent both



Fig. 1. X-ray of right hand. Scale 1 inch.

in his ancestors and children. At the age of twenty-nine years he first complained of stiffness of the joints of the hands. Three years later his hands and feet commenced to enlarge noticeably and rapidly for a period of two to three years and since then more slowly up to the present time. At forty-eight years of age he noticed a marked change in the separation of the teeth accompanied by an increase in the size of the jaw. Even now he says his "bite" is changing. At the present time he is weak, feels that gradually his strength is diminishing, tires easily, sweats profusely, is apt to be irritable

and depressed mentally. There has been an increasing polyuria. The bones still seem to be increasing in size but the muscles are not increasing in proportion. He has used both alcoholic beverages and tobacco in the past but neither to excess. He complains of a constant bad taste in the mouth. His glove size has increased from 8½ to 12 and shoe size from 9 to 12, both these being small for him now. He has noticed no enlargement of the neck in the region of the thyroid.

Family History—Mother had large hands and feet, also had gall bladder trouble. One sister had an umbilical hernia. One sister operated on for gall stones and one died of carcinoma of stomach or gall bladder. One child has a patent inguinal ring and one has an infantile uterus.

Physical Examination reveals a ponderous appearing individual of apparent great strength. Ears, eyes, nose and throat negative. Tongue large. Marked separation of teeth, especially lowers. Occlusion imperfect.

Supraorbital and malar prominences very large. No enlargement of the thyroid. No cervical adenopathy.

Chest. Large type. Expansion normal. Lung and cardiac findings normal.

Abdomen: Scars of former operative work, otherwise negative.

Genitals: Negative.

Skin: Thick and leathery. Is of yellowish hue.

Extremities: Hands and feet very large and moist with perspiration.

Glove measurement, right hand, 11½ inches.

Circumference, thumb, right hand, 4¼ inches.

Condyle of mandible to symphysis menti, 7½ inches.

Reflexes: Sluggish. Touch is also markedly dulled.

Laboratory: Urine, 4000 to 6000 daily, low sp. gr., no albuminuria or glycosuria following ingestion of 250 grams of sugar. Blood, reds, 4,800,000, whites, 7000, Hb. 85%. Differential normal. Wassermann negative.

X-ray: Shows a very large and not clearly defined sella turica. Bones of the skull massive and dense.

In the review of several case histories and the more recent literature of acromegaly I have been unable to find any comparison made with any familial characteristics. Thyroid disease is asso-

ciated with acromegaly in 33 per cent of cases usually in the form of hypo-thyroidism.² Gall bladder disease is frequently mentioned in connection with it. In the Cook County Hospital during the past eleven years only seven cases of acromegaly have been entered; of these four have shown inguinal hernias and two have given definite history of gall bladder disease. Seldom do patients enter the hospital complaining of the bony changes caused by the acromegaly but about half come for the relief of the severe headache that usually accompanies this disease.



Fig. 2. X-ray of skull, showing ill defined sella turcica.

In this case also we find headache, gall bladder disease and hernias were his complaints. It is interesting to note the findings of eight members of his own family, these eight being his parents, three sisters, himself and two children, in whom we find three inguinal hernias, one umbilical hernia, four diseased gall bladders (one indefinite case), one cerebral tumor causing blindness, one hydrocele, one varicocele, and one infantile uterus. It is this array of findings that aroused my interest in this particular case.

While treatment will not be discussed at length, it was found that one c.c. of antuitrin (P. D. & Co.) hypodermatically caused cessation of sweating for a period of twelve to eighteen hours. Some cases are relieved for months following a course of such treatment.³

This case is reported because of the rather unusual findings surrounding it and also because of its comparative rarity. Although gall bladder

disease, per se, may not be considered a defect, it was so frequently encountered that it is thought worthy of special mention. In considering this case from the standpoint of a developmental defect, it is not primarily with the idea of advancing another theory of etiology but rather to look at the same subject from a slightly different angle.

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BIBLIOGRAPHY

1. Krumbaar, E. B., *Med. Clinics N. America*, 5:927, Nov., 1921.
2. Jermain, L. F., *Wisconsin M. J.*, 20:135, Aug., 1921.
3. Tice, *Practice of Medicine*, vol. viii.

DISCUSSION

DR. S. E. MUNSON, Springfield: I would like to ask the Doctor which lobe for the antuitrin extract he used.

DR. B. V. McCLANAHAN: Anterior lobe.

THE IMPORTANCE OF THE EARLY RECOGNITION OF SYPHILIS OF THE CENTRAL NERVOUS SYSTEM*

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The discovery of the *spirochæta pallida*, the introduction of the Wassermann reaction and salvarsan treatment and the extensive employment of animal experimentation have stimulated further investigation and revealed many new observations in both the theoretical and clinical fields of syphilis. It is the purpose of this paper to review briefly some of the later observations, and to urge certain measures of prophylaxis of syphilis of the central nervous system.

In the early part of the 19th Century Philip Ricord, using the skin manifestations of the disease as his main criterion, divided syphilis into three stages. It is well known that the primary stage has reference to the initial lesion and involvement of the adjacent lymph glands; the secondary stage includes the specific changes of the skin and mucous membranes; tertiary consisting of late gummatous deposits involving the inner and other structures of the body (visceræ, bones, etc.); and the quarternary stage of Fournier is named for the latest period—the so-called para-syphilitic diseases — tabes and general paresis.

*Read before the Chicago Medical Society, April 30, 1924.

Pending development and whilst knowledge as to the origin and evolution of the disease was in a state of empiricism and biological interpretation of it was not understood, Ricord's division was undoubtedly useful for the purpose of clinical diagnosis. In the light of the latest observations it appears that this method of classification is fundamentally faulty and therapeutically misleading. Misleading for the reason that, while this classification emphatically stresses the active stages of the disease, when cutaneous manifestations are picturesque, it causes apathy and almost utter disregard of the latent stage, during which the treponemas are firmly entrenching themselves in the various organs of the body. Thus, this doctrine tends to foster medical inactivity during the masked period of the disease and give the infection free leave to match its full specific force against the so-called allergic or defensive action of the host until the disease again flares up in the form of the tertiary stage. The late Drs. Hyde and Fox deplored Ricord's classification. Hyde said, Ricord's division is "nothing but an artificial device for classifying in a clumsy way the clinical phenomena of the disease," and Fox stated, "I wish that the terms, primary, secondary and tertiary, could be expunged from our vocabulary." Recent observations have shown that during its early evolution the infection is not limited to any tissue and that there is no definite boundary line between the various stages of the disease. In its stead, the parasite finds abode in the lymph spaces soon after its inoculation and continuously multiplies and radiates into the adjacent and distant lymphatics, lymph glands and blood stream, filtering through the walls of the blood vessels into the perivascular interstitial tissues of the various organs. Though the virus has a predilection for certain organs—skin, aorta, meninges,—it involves any and all the tissues of the body. At present there is abundance of evidence that syphilis is not only a systemic infection but that it is a systemic infection *from the time of its inception* and that the parasite may spread throughout all organs of the human economy in any stage of the disease.

Ample literature could be quoted to substantiate the above assertion, but, due to lack of time, will cite briefly only a few of the more important observations. Neisser, in his extensive experiments on monkeys, has shown that

the syphilitic virus is demonstrable in all organs of the body long before the primary induration makes its appearance. In two cases of accidental syphilis watched closely since inception, Fordyce observed the symptoms of systemic involvement without the intervention of the initial lesion. Finger tells us that about six weeks after inoculation all organs of the body are flooded with spirochaetes. What is the explanation for the presence of the familiar phenomenon of a strong Wassermann reaction in the large number of luetic individuals who give a negative history of primary and secondary lesions? Voluntary concealment answers for some of them. Another group may be allowed for an oversight of indistinct external manifestations. However, must not this coincidence in a certain per cent of cases be accounted for on the basis of a primary involvement of the internal organs? Neisser states that the virus may gain access to the lymphatics and blood stream direct to the skin without any visible or microscopic external changes. It has been shown that the biochemical changes rendering the syphilitic individual during the early period of the disease refractory to the development of a typical chancre, known as the anergic stage, is an expression, not of a local, but of a general systemic defensive function in response to the specific toxin of the syphilitic virus. Histologically, there is no clean cut distinction between the various stages of lues. Virchow says that recent and remote syphilitic lesions often look microscopically so much alike that one stage cannot be distinguished from another. Warthin cautions against the exclusion of syphilitic involvement on simply a gross pathological examination. He demonstrated on extensive autopsy material that microscopically syphilis is essentially alike in the various stages of the disease and that the characteristic specific inflammatory changes (lymphocytes and plasma cell infiltration and presence of spirochaetes) are distributed throughout all the organs of the body. Furthermore, that the gumma upon which we formerly hinged our diagnosis of the tertiary stage, is a lesion of rare occurrence.

The syphilitic virus is generally accepted to have a predilection for the meningo-vascular system of the brain and spinal cord. It is also well known that when the central nervous system is involved it is most difficult to cope therapeutically with the infection. Hence, it is of

the utmost importance that spirochætosis be detected not during the remote period when they are firmly embedded in the mesodermal tissue of the neuronic system, but during that early stage when the meningo-vascular tissue presents the very first evidence of being threatened with involvement. For approximately fifty years many observers have called attention to the occurrence of nervous symptoms in numerous cases during the early stages of syphilis and attributed the headache, vertigo neuralgia, etc., which occurred during the second stage of the infection, to be symptomatic of meningeal irritation. It is now generally accepted that these early nervous manifestations indicate extension of the infection to the central nervous system.

Pathologically, it has been repeatedly shown, that the mesodermal tissue of the brain and cord present characteristic changes as early as two to twenty-one months after the initial lesion. Warthin found some degree of meningeal thickening in every case of latent and clinical syphilis.

Above all former observations, however, the most recent extensive and systematic studies have demonstrated that in the early stages of syphilitic infection, when symptoms of neurosyphilis are still held in abeyance, the cerebrospinal fluid presents specific changes of meningeal irritation and furthermore, that during the first year subsequent to the initial lesion these changes are as yet fleeting in nature. Revaut, the first to call attention to this phenomenon, reported in one of his contributions that in 85 per cent of cases the spinal fluid presents specific changes (increased cells and globulin) during the second stage of the infection. Dennis and Smith found 20 per cent of cases to present a positive Wassermann reaction in the spinal fluid during the primary stage and 55 per cent during the early period of the secondary stage of lues. Wile and Stokes reported that 66.7 per cent of their series showed specific changes in the spinal fluid; Wechsleman, in many of his cases, when the chancre was still present. Koenigstein and Goldberger found that during the first year of the second stage the changes in the spinal fluid are most numerous but transitory (57.9 per cent), while during the second year of this stage they occur less frequent (32 per cent) but are more fixed.

In the Neurological Service at the Cook

County Hospital, where practically only cases with definite symptoms of cerebrospinal lues seek admission, it is not at all unusual to find a case with a history of recent chancre and positive spinal fluid. To illustrate:

A 26-year-old married white man, with a negative family and previous history, developed a primary lesion on February 22, 1922. Upon inquiry at a dispensary, where he was first treated, it was revealed that the smear obtained from an enlarged left inguinal gland presented an abundance of spirochætes and one month later blood Wassermann was reported positive. Three months after the initial lesion the patient developed the usual subjective symptoms of meningeal irritation, headache, ringing in the ears, vomiting and insomnia. These symptoms persisted for two or three weeks and about a week later he noticed a paralysis of the left side of the face. When admitted to the hospital the physical examination revealed a left facial paralysis of peripheral distribution. The left ear was partially deaf and upon vestibular tests presented no nystagmus, typifying a paralysis of the vestibular branch of the eighth nerve. The motor and sensory branches of the trigeminal nerve were partly lacking in function; eye grounds showed a bilateral neuro-retinitis; ataxia was present on station and locomotion. The blood and spinal fluid Wassermanns were positive. The fluid contained 700 cells per cubic millimeter and the globulin tests were positive. He was diagnosed as syphilitic basal meningitis and under anti-luetic treatment the clinical symptoms subsided.

K. P., aged 26 years, single, Greek, laborer, on June 25, 1922, acquired a chancre and only three months after the initial lesion developed headache, insomnia, pain in the arms and legs and general malaise. These symptoms persisted and after six months he was forced to seek admission to the hospital.

Examination revealed left side ptosis and left facial paresis of the whole facial nerve. The pupils were irregular but equal and reacted normally. The Eye Department reported a bilateral optic neuritis. The blood Wassermann was 4+ and spinal fluid Wassermann 4+; cell count 35; globulin positive. Diagnosis: Basal syphilitic meningitis.

B. M. H., aged 32, single, aviator, admitted to hospital November 11, 1923. About December 15, 1922, developed chancre. About seven months after infection noticed stiffness and weakness of both legs, especially the left, burning of feet, incontinence of bladder, and paralysis of the bowels and impairment of vision. About one month later, in addition to the above symptoms, vertigo and vomiting forced him to enter hospital. The symptoms which persist to the present day were stiffness and weakness in the lower extremities.

Examination reveals a classical picture of spastic paraplegia, unequal pupils and an optic neuritis. The blood and spinal fluid Wassermanns were 4+. Cell count of the fluid 60.

Diagnosis: Cerebrospinal syphilis.

G. J., aged 34, colored, laborer, admitted to our ward

January 1, 1924, complaining of stiffness and soreness of neck, loss of power in right leg and pain in right shoulder and arm; also numbness of left side of the body and leg and sweating of the left side of the head. He stated that in the middle of August, 1923, had the primary lesion and three months later developed pain in both arms, followed by weakness in the right arm and on day of admission the above symptoms set in.

Examination revealed a typical Brown-Sequard paralysis and a Horner's syndrome. Blood and spinal fluid Wassermanns were positive; cells 390; globulin positive.

Diagnosis: Luetic spinal meningitis at the level of the eighth cervical and first dorsal segments.

The clinical picture in this case cleared up under antiluetic treatment.

These cases simply confirm the many observations that syphilis has a predilection for the central nervous system and that the spirochaetes may involve the meningo-vascular tissue, accompanied by definite objective symptoms and spinal fluid changes, not only during the tertiary stage as was formerly taught, but during the fluorescent epoch of the infection.

The pathological changes of the spinal fluid, precipitating as they do, long before the physical disturbances of the central nervous system definitely assert themselves, must be exploited for purpose of improving the standard of treatment of neuro-syphilis especially in prevention of the late syphilitic nervous diseases. If there is any hope for a cure that expectation rests entirely in the early eradication of the infection.

In the cases where definite symptoms of organic destruction of the brain and spinal cord present themselves, as illustrated by the cases just cited or by cases of tabes and general paresis, the diagnosis is not difficult and the prognosis is at best dubious. While in that group in which during the early period of the infection no clinical manifestations or only hazy symptoms of meningeal irritation are found, no means are at hand of obtaining positive information that spirochaetes are lodged in the central nervous system except by the medium of spinal puncture. Therefore, during the incipient stage of cerebrospinal lues when, as above stated, the spinal fluid already presents characteristic changes, and while spirochaetes have as yet but a slight hold upon the meninges, when the prognosis of curability, on proper anti-luetic treatment, is more favorable, lumbar puncture presents the only positive source of information, and must be considered as one of the most im-

portant guides for early diagnosis and persistent treatment of syphilis of the cerebrospinal axis.

During the first year of the infection the changes in the spinal fluid are fleeting in character, denoting that meningeal irritation is not as yet permanent. At this stage energetic antiluetic treatment might be carried out without the ordeal of spinal puncture. However, in the second year of the infection and thereafter when conversely, the blood Wassermann and clinical symptoms may become normal and the spinal fluid changes become more permanent, spinal puncture must be made to determine whether the syphilitic virus is threatening the meninges and, if found to be positive, shall henceforth be the controlling factor as to the efficiency of the treatment. This procedure will materially help to eradicate the infection before irremediable damage is done to the vital organs of the central nervous system.

2. SUMMARY

1. The doctrine that syphilis is a skin disease or that it is divisible into stages is scientifically incorrect and misleading.

2. Various observations lead to the conclusion that a syphilitic virus may spread to the vital organs of the body even prior to the appearance of the primary lesion and in a large per cent of cases prior to the end of the second stage.

3. The central nervous system is a point of predilection and its mesodermal tissues are frequently involved during the early periods of the infection.

4. The pathological changes of the spinal fluid, which are characteristic of neuro-syphilis, are found to be present in a large per cent of cases during the early stage of the disease.

5. To prevent permanent injury to the ectodermal tissue, constituting the brain and spinal cord proper, symptoms of any degree, denoting meningeal irritation, must be recognized at or soon after the inception of the infection.

6. In cases with hazy or no manifestations of meningeal involvement the examination of the spinal fluid will often prove a most important aid in the early diagnosis of syphilis of the central nervous system.

7. When the spinal fluid is found to be positive during the first and even the second year of the infection, energetic anti-luetic treatment may render the spinal fluid permanently sterile

and prevent occurrence of the late cerebrospinal manifestations.

DOCTORS AND THE PEOPLE*

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ADRIAN, ILL.

Rudyard Kipling made a striking statement about the real power of the medical profession. He said in substance (I cannot quote his exact words): "Doctors can make a desert of a metropolis. With a few yellow small-pox signs they can change the busiest street to the loneliness of Sahara." This of course is due to the deep-seated dread of unknown infections, but it shows what influence our opinions may have if we intelligently use our faculties.

Quacks will continue to plague us, and rob the people of money and health till those who think and see crooked vanish from the earth, which will not be in our time and probably never. But the majority of any American community are not fools, though there are many who do unwise things through ignorance. By helping those who "see through a glass darkly" to think clearly, we can benefit them and ourselves.

It is not good policy to rail at the cults of pretenders at healing. A strong man, ready for a race, gains nothing by reviling cripples. A difference between athletics and medicine is that in the latter, incompetence is not obvious. That is largely our fault. Doctor in the original Latin means teacher. Has this part of our title become so atrophied that we can no longer defend ourselves? There is only one effective way to do this—teach the people that modern medicine depends largely on careful observation and scientific training and that only those who do and have this are fit to treat the sick.

We do not need to advertise blatantly. We do not need to use the methods of our shady colleagues who push themselves on by braggadocio and the grace of ignorant gabble. All we need to do is to tell the truth as we know it without selfish personal aims or methods. Why not do it now and in Hancock County?

The treatment for our professional ills is largely individual and personal with us. No better opportunity to impress on our patients the value of scientific medicine will come than when

they are receiving the benefit of it at our hands. Take a little time to explain how and why and what we are doing. General public instruction in the fundamentals of physiology and pathology are virtually essential, but until we individually drive home these facts, such efforts will not get the best results.

We must "deliver the goods." Slipshod diagnosis and treatment harm not only the doctor who makes them, but all of us as well. As our secretary, Dr. Knight, has well remarked about our cases that drift off to alleged specialists of the patient's own choosing, to hospitals and famous clinics and worse still, to ill-prepared, self-styled practitioners, the remedy is hard individual work. As he says, get down and dig out the obscure facts of a case that is not progressing well, and hunt out all the known methods of treatment. If we cannot get a successful result, we will probably have the patient's respect and can send him to a consultant who will treat both us and the patient right.

Have you not all noticed the interest people have in matters of health? Hardly any assembly of people will talk fifteen minutes without referring to the state of health of somebody. Several methods of using this natural interest are ready to hand.

The newspapers of this county are alive to the interests of their readers. I believe most of them would welcome articles of practical value on good health coming from an organization like our society. Such contributions would be a feature that many of the metropolitan journals regularly use and have to pay for.

Another way is by the promotion of periodic health examinations. I believe that this and other measures of preventive medicine offer great opportunity to the physician of the future. We need not fear that this will curtail our professional incomes. This work will take a great deal of professional time and skill. And as this develops it will bring out new demand for curative treatment. The standards of health will be set on a new and higher plane. Thirty years ago, doctors did not do much for diseased tonsils, or the milder toxic goiters or fatigue intoxications. As time goes on, we will have more and better work, with better results, and be more amply paid for it. This will come about if we are alive and up-to-date—if not, we had better abandon medicine.

*Read before the Hancock County Medical Society, April 8, 1924.

The medical examination of school children is a thing which has been begun, but barely so in the country districts. This matter has got off on the wrong foot with us, in that most of the work done by doctors has been on a charity basis. If the people who are interested in schools can be brought to see that medical inspection means healthier children, better school work and stronger men and women in the future, they will not wish it to be done gratis any more than they expect free teaching or free coal—that is, without proper compensation. People in the rural districts have not had their ideas of honesty impaired by fool free dispensary or hospital service to those who can pay. I suggest that at the next meeting of this society the leading public school authorities of the county be invited to a conference with us on this subject.

For almost a year, the Woman's Home Bureau of this county has been considering the matter of health examinations. I think that if a committee of this society should ask to meet with the Executive Board of the Home Bureau, good results might follow.

But there is an obverse side to the shield of our professional burden. If we are to do these added and important duties, we must have time and means to do them. A doctor cannot do the medical work of today with the equipment and surroundings of forty years ago any more than farmers can manage with scythes and one-horse cultivators. The doctor has no business to have to depend on horse transportation except in sudden and dire emergency. Good roads are as essential as modern instruments of diagnosis. This winter's roads have for the time being set us back to the conditions of a generation ago. We could not make sufficient visits to our patients. We had not time for the reading, study and laboratory work in our offices, which, if we are to do more than a superficial pretense at good practice, is as necessary as examination of the patient or prescribing his treatment. People must be brought to see that bad roads do not mean merely a superhuman task for the doctors, but that they as individuals are the real sufferers, because they do not get the best medical service. Also they should learn that the country districts do not have and will not have as numerous a medical personnel as formerly. In the future, if isolated neighborhoods prefer to stick in the mud, they will at times have to stew in

their own misery, for the doctor who is busy with patients near at home will not sacrifice their interests to drive eight or ten miles at the tail of a horse.

We all know the value of hospitals. I do not think that hospital environment is best for the majority of patients. The surroundings of home are ordinarily more comforting to the invalid than a strange place. They do better and respond better to the inspiration of family care and affection. But there are many cases where a change is urgent and necessary. Surgical cases we know do better. The desperately ill who need every resource of medicine and the most watchful care should be in the hospital. Every town that can support good schools and churches should have at least a small hospital. Every doctor should have a hospital within 30 minutes reach for his cases that should have such care.

The co-ordination of good roads, hospitals and a medical profession that has time and opportunity to be progressive and use all the modern armamentarium of medicine offers more to the people than anything we have been able to give them in the past.

OPHTHALMOSCOPY IN MEDICINE AND SURGERY*

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Ophthalmoscopy should be a most interesting subject for general medical men and surgeons, if mastering the ophthalmoscope were not wrongly considered as next to impossible. The ophthalmoscope is a simple, inexpensive and useful instrument which can be mastered in a very short time if its study is approached in a proper manner. Unfortunately, ophthalmoscopy is not taught in a practical manner in medical schools, and post-graduate teachers tell me they rarely find a student who can make diagnosis with the ophthalmoscope unless he has learned its use outside of his regular medical course. I seldom meet general medical men who can examine the interior of an eye, even with a dilated pupil. The ophthalmoscope is such a useful instrument that it should be taught to medical students as a laboratory course, with models, in the beginning of their studies.

Method of Teaching. Instructors of ophthalm-

*Read before the Owenburg Medical Society, May 27, 1924.

mology have their special system of teaching. Some divide the class into small sections and practice upon patients with dilated pupils. This method has its disadvantages, because as a rule, only diseases are observed; on the contrary, the normal eye should be first mastered. Again it is quite impossible even in a very large clinic to get all diseases to study.

Eye Models. With the writer's model, having two normal and twenty-two diseased pictures, the normal eye can be mastered first, then the diseases can be studied. The model has a pupil that can be made large or small, as desired, beginning with a large pupil and as proficiency is obtained, it can be reduced. When the model is mastered, the study of the human eye is simplified. It is not necessary in this paper to describe models, or how to use them. Full descriptions accompany them.

It is not necessary to practice upon patients: in fact, a model is far better and pictures of almost all diseases of the eye can be found in it. If the subject were not taught in a practical manner in college, and the medical man finds he cannot examine the interior of an eye with the ophthalmoscope, he can easily master the subject with a model and a good book.

Having received many letters from medical men who have mastered ophthalmoscopy with a model and fitting of glasses from home study, I am convinced the subject is not as difficult as some imagine. The writer published an article, "Teaching of Ophthalmoscopy to Undergraduates and Graduates in Medicine" (Ophthalmic Record, 1909), and stated that if medical schools would teach ophthalmoscopy and fitting of glasses to their students, their graduates would find the diagnosis of many diseases in their practice which would otherwise be overlooked, made easy and the treatment simplified. Another statement was made, that if this were done, there would be no further legislation regarding opticians, because medical men would treat refraction cases and opticians would have no business.

At that time (1909) there were optometry laws in twenty-four states of the United States, and now in 1924 every state has its optometry laws. If ophthalmoscopy can be mastered from a book and model, and it can be done, then practitioners can add this instrument to their armamentarium. I do not believe anyone who has impartially in-

vestigated the subject will take issue on the foregoing.

What Are Common Diseases of the Eye. From an oculist's standpoint, diseases of the interior of the eye, as revealed by the ophthalmoscope, are called common diseases, but without this instrument, diseases of the lids and such other diseases of the eye ball as can be seen by inspection, are called common diseases. Many diseases of the interior of the eye that the practitioner could see and diagnose with the ophthalmoscope could be treated with satisfaction to himself and patient.

Pathological lesions of the fundus are not difficult to diagnose if they can be seen, and if so, ophthalmic text-books are interesting and of great value. If the ophthalmoscope cannot be used, text-books on ophthalmology are practically useless.

Choked Disc. Blindness is common on account of undiagnosed swollen optic nerves. If a swollen nerve head (choked disc) usually caused by syphilis is diagnosed and treatment instituted early, recovery is usually complete.

Optic Atrophy. This disease, usually following choked disc, is quite a common condition for an oculist to find, but would be very rare if the diagnosis (choked disc) were made early and proper treatment instituted by the family physician, who is often consulted first on account of headaches or blurred vision. Choked disc readily yields to treatment, but optic atrophy terminates in blindness. If the above is correct, as it is, then it should be imperative that practitioners familiarize themselves with ophthalmoscopy.

Obstetrics. If physicians are to have the lives of parturient women entrusted in their care, they should have the benefit of this little inexpensive instrument.

Fitting of Glasses. Patients often consult the family physician regarding headaches and poor vision. Many of them would be promptly relieved if proper glasses were prescribed instead of drugs. After long waiting and much treatment, glasses are given with success in many cases. The oculist or optician seem to be the only ones who do this work, and since it is such a simple procedure, it could also be done by the family physician. It is possible that some ophthalmic surgeons may take exception to the above, but the fact remains that opticians or optometrists

are getting results although they know little of diseases of the eye, and very few of them are familiar with the ophthalmoscope and its use.

Conclusion. Practitioners should understand ophthalmoscopy in order to give their patients intelligent advice regarding many diseases positively diagnosed with the aid of the ophthalmoscope, such as hemorrhages of the retina, Bright's disease, albuminuric, diabetic, syphilitic and leukemic retinitis, choroiditis, sarcoma of the choroid, optic neuritis, optic atrophy and glaucoma. Many diseases easily recognized with the ophthalmoscope can be successfully treated, thereby relieving suffering, preventing blindness and even death. Some of the ablest general practitioners, surgeons and neurologists use the ophthalmoscope and make diagnosis of the interior of the eye, and the writer is surprised that this subject is not more generally understood, especially when it is within the grasp of all.

The committee on medical education of the A. M. A. which has accomplished so much might correct this error by insisting that practical ophthalmoscopy and fitting of glasses at least equal to optometry practice should be taught in medical schools.

THE SCOPE OF PERIODIC PHYSICAL EXAMINATIONS*

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CHICAGO

There are approximately 110,000,000 people in the United States. Of this population 1,700,000 or 2,000,000 seek and obtain medical attention during each year. For every sick person on our list, there are one hundred or more who are well. Many of the apparently well ones have preventable illnesses incubating in their systems. They do not know it. Our duty is to inform them.

Health officers are paid for supervising and, to a degree, controlling the health of a community. In this country doctors are paid for rendering service to the sick. In some countries doctors are paid to keep folks well. When they become ill pay stops. It is reasonable then to believe our field is two-fold—preventive and curative.

The medical profession has been so occupied

with alleviating suffering and curing disease, that we have left open, until recently, the field of preventive medicine. In some instances unskilled efforts have been put forth by the laity to prolong life and prevent disease. These efforts fell short of what they were expected to accomplish, only because not directed in the proper manner by expert medical knowledge. All this has had a broadening influence on the scope of the practice of medicine.

The manufacturer has seen this problem, possibly a little ahead of the doctor and has recognized in it a great economic situation wherein he was losing, through sickness of employes, many days which otherwise might be saved not only to the employer but to the employe's family.

With the idea in mind that society generally would benefit, a number of philanthropic organizations were brought together during the past winter for the purpose of forming the Illinois Association for the Promotion of Periodic Health Examinations.

I find the scope of periodic physical examinations may be considered under five headings:

1. Apparently healthy persons of all ages.
2. Presymptoms of approaching illness (the symptom of a symptom.)
3. Early evidence of disorder before discomfort interferes with occupation.
4. Progressive disturbances which produce anxiety sufficient to warrant medical analysis.
5. Diagnosis of established disease.

There is nothing, in my mind, that will bring the public closer to the profession than the fact that we are trying to keep folks well. When the public thoroughly understands we have no ulterior motive, that our attention to a healthy person is to keep that person healthy, then we will make progress. It seems to me the well qualified medical practitioners of the country have a responsibility with healthy persons, wherein a closer contact may be brought into effect which will inhibit the efforts of the pseudocultist and the faker. Why not inform our patients we will keep them well for a certain amount each year? This will have a tendency to lead them away from cults and evil agencies.

If the County Medical Societies at their meetings would encourage physical examinations by the family physician of the members of fami-

*Read before Section on Medicine, Illinois State Medical Society, Springfield, May 7, 1924.

lies who are dependent upon him, there is no doubt in my mind but that preventive medicine would go forward by leaps and bounds.

A quick way to get returns on this subject is to convey the soundness of our argument to women's clubs. A talk of ten minutes by a disinterested party before a club, will be sufficient to start a whole town discussing the subject. Of course, it will be necessary to have the examination blank ready, so they can go over it.

I am inclined to the opinion Dr. George E. Vincent, president of Rockefeller Foundation, advanced a short time ago when he said it might be well to pay a doctor a retainer fee by the year to prevent sickness in a family. The physician is to visit the home at certain intervals and by examination prevent, instead of merely curing, diseases. When that day comes the prevalence of illness will be much reduced. It is not improbable that many centuries hence disease will be as unusual and curious as any other freak of nature. Laying aside cases of gross carelessness, we have not taken time to study ourselves in our relation to the things with which we come in contact and by which we carry on our daily lives. If a person periodically confides in his physician, giving him an intimate picture of his mode of living, his foods, his exercise, his daily round, a possible illness would probably be averted.

In discussing the presymptoms found by examination of family history and record of patient's mode of living, it may be necessary to further inquire into ancestral and genealogic history. The patient's memory, disposition, character, reason, and education are all to be considered together with environment. Testing and tabulation of all the significant reactions and functions—tests of the muscular system, the reaction of reflexes of each of the special senses. All the art and skill a physician is capable of commanding should be brought into use while making this part of the examination. Otherwise, the sharp line of distinction between health and disease may not be discovered. In fact, many a presymptom may be overlooked, if a physician forgets he is looking for early manifestations of symptoms and not disease.

It has been stated physical examinations should be made by specially qualified physicians who were in a position to detect and record all

the unusual symptoms and advise treatment accordingly. In my opinion any doctor with ordinary intelligence can test and record such presymptoms as undue tendency to fatigue, vertigo, unusual headaches, indigestion, doubtful urinary findings, etc.

It must be borne in mind that there is yet no general agreement as to what constitutes a normal individual. What is important to know is how the individual as a whole can undertake the affairs of life, rather than befog the issue with an array of defects which though permanent may in no way interfere with his future field of usefulness.

During the days of epidemics and pestilence it was considered good evidence of normal health to avoid death. People would expose themselves and their children to mild cases in the hope they might contract a mild form of the disease. It never occurred to those people that they might entirely avoid pestilence. Their only thought was not to die of it. There was a great improvement during the first part of this century in the avoidance of certain infections, those infections especially referring to infancy.

Our struggle in this age is not only to prevent infections and contagious diseases, but toward perfecting health. A healthy body can be made a positive asset. It is one of the necessary foundation stones, not only to prevent disease but also for development.

I think more emphasis should be placed on the fact that by physical examinations we are able to determine that folks are healthy, than to discover certain defects with the assurance these defects can be corrected. We have a great problem to solve with reference to treatment of defects found in patients who are in need of help, but are unable to afford to go to private physicians and dentists and are unwilling to accept charity. This situation has not been fairly met up to the present time by either the dentists or the physicians.

A short time ago I attended an autopsy wherein the question of why a man had fallen into heavy machinery and been crushed was to be decided. It was found this man had an adhesive pericarditis with other complications sufficient to produce sudden death. Had this patient been given the benefit of a physical examination at the time of employment, he would

have been treated for his malady and placed at work without danger. The economic result would have been different, both to his family and employer.

Out of 1,397 physical examinations made in an eastern department store it was found 405 were free from defects—or 29 per cent.

701—defects of vision.
528—disturbances in nutrition.
20—defective hearing.
887—defective teeth.
38—enlarged and diseased tonsils.
167—disturbance of goiter.
50—circulatory disturbance.
10—disease of lungs.
34—hernias.
93—skin diseases.
97—flat foot.
90—severe dysmenorrhea.
52—abnormal urinary findings.

2,867—different kinds of defects in 992 examinations, averaging two per person.

American employers are interested in physical examinations of their employes from a humanitarian point of view. But there also is quite an important economical consideration, for it is a serious interference with plant efficiency when workers have to lay down their tools on account of illness. If the average loss per year for each worker were only five days, in place of seven, as it now is, it would mean saving millions of dollars to employers of the nation in increased efficiency.

Over one hundred years ago Doctor Benjamin Rush, after whom Rush Medical College was named, wrote a book on medical practice and in the first chapter cites many cases in which patients suffering from rheumatism and other maladies either were cured or greatly improved by the extraction of teeth.

More than a century ago in England examination of the teeth of school children was considered a routine procedure.

Teeth of the average adult appear to have been neglected judging from the evidence of 6,000 x-ray pictures taken a few years ago of the mouths of 600 adults of the average age of twenty-eight years. These pictures showed over 1,500 treated teeth and an average of five and one-half teeth missing for each person. Allowing for a few who never had wisdom teeth, we might say that an average of four teeth for each person had been extracted because of neglect of cavities of decay. These same x-ray pictures showed that 51 per cent. of these 600 adults had infected areas at the ends of roots of one or more teeth and 53 per cent. had parts of the

bone along the sides of the roots destroyed by the infective process known as pyorrhea. Of the entire 600, 78 per cent. had one or the other or both types of infection. Nearly every leading physician will tell you that infections of the teeth are by far the most frequent causes of secondary infections elsewhere in the body. The lack of attention to the teeth of our children and adults results in a series of disabilities which is without doubt cutting short the lives of many people.

Recently Miss Marion A. Campbell, Secretary of the Illinois Society for the Prevention of Blindness, stated:

Congenital Amblyopia is not an uncommon condition found among school pupils, and is often discovered among employes in industrial plants, who, however, are ignorant of the fact and have never realized that they have by reason of it but half vision. Such adults are likely to become liabilities to the employer who must compensate him for the loss of an eye through accident, which, if the fact were known previous to the accident, would have eliminated responsibility of the employer. Should such an employe lose the sight of his one eye through an accident and it be then discovered that he is totally blind, the liability of the employer then becomes infinitely greater, as he must compensate for total disability.

The amount paid in Pennsylvania in six years for eyes lost, under the operation of the Compensation Act, was \$4,400,000. This was more than the amount paid for hands, arms, feet and legs in the same time.

We believe it to be a sound economy to provide an eye examination at entrance for all employes, with frequent re-examinations after an illness or any accident to the eye or eyes, to follow the examination with opportunity for refractive service and glasses at such rates as will make it possible for employes to secure such.

There were in Illinois during the year of 1919 804,805 persons engaged in industry. This same year there were 653,114 wage earners. During the year of 1921 there were 642,325 persons engaged in industry and 513,876 wage earners. The number of persons engaged in gainful occupations in Illinois ten years of age and upward during 1920 was 2,627,738. Of these, 2,086,000 were males and 540,938 were females. Employers are slowly demanding examinations of these employes. Labor now is anxious for the examinations, in fact conducting examinations themselves and checking up on the employer. Up to December, 1917, 3,764,000 men were sent to military camp from civil life, of whom 550,000 were rejected because of defects.

Recently life expectancy has been raised from 46.63 to 55.08 or an increase of 8.45 years. Doctor Dublin has shown in a lecture to the Harvey Society that the expectation of life should be extended to 65 years. The extension of life expectancy one year means to this country 100,000,000 life years; and, figured at \$100 a year, means \$10,000,000,000.

Doctor W. L. Hartman in a recent report refers to five men in very responsible positions, each of whom came very near wrecking the business that he influenced because he had syphilis of the brain. Dr. Hartman further states: "Nations have been wrecked by cerebral syphilis of rulers." Before the world can be made safe for democracy, the League of Nations will have to require that all kings and "potentates be examined for cerebral syphilis once a year. The behavior of a man with cerebral syphilis makes it dangerous to have him in a position of authority. Notions of grandeur are very apt to show themselves.

A physical examination should be arranged for by making an appointment with the family physician. The examination should never be made during crowded office hours. The appointment is desirable because the time required should be not less than one-half hour. This length of time given will be profitable both to patient and physician. The physician's time can be materially saved if the patient will fill out the history blank, answering all of the 36 questions.

I rather doubt if it is possible for physicians not familiar with routine examination work to go over a patient completely as required by our Illinois blank in a half hour. It may require much more time. This examination blank may be referred to by a Doctor in another town or another state at a later time. In order to have it contain information that can be depended upon, one should allow sufficient time to do the patient justice. In examining a patient for temperature, blood pressure, sitting and lying, hearing and vision, urine analysis, chemical and microscopic, as outlined in the introductory part of the blank, one should allow sufficient time to do it well. A urine analysis should not be made hurriedly. Neither should a physician accept a bottle of urine brought to the doctor by the patient. I can see great harm come from a phys-

ical examination blank signed by a doctor to be used for various purposes, when the physician has a doubt about some of the more important tests.

The success of all our propaganda and future of this work depends upon how thoroughly we do our work. A hurried makeshift examination is much worse than no examination at all. For example, a patient returns from a Doctor with 99 per cent. physical findings. He is much elated. He has a right to be. He has been contemplating marriage, or he wishes to assure his family he is in splendid condition of health. At the time of this examination he was considerably disturbed, but the doctor has allayed all anxiety. For a time he continues on the crest of the rainbow as the clouds clear away. However, the progress of his illness advances. Suddenly he awakes to the real facts when it is most too late. At the time of this examination the doctor was in a hurry, many waiting in his office. It was another of those physical examinations which required time and not much money, so he hurried. The result has been loss of confidence by patient in the doctor with further derogatory comment from the laity.

A prominent internist said to me last winter that he was afraid periodic physical examinations would be upon the medical profession before physicians were ready to cope with the situation. In other words doctors generally would need a little special training. If physicians take this matter seriously, results will be obtained. Our patients will think more of us and be willing to pay a substantial fee.

The question of amount of fee should be settled by the County Medical Society, as all other fee questions are settled, according to the ability of the patient to pay. I am inclined to believe the usual fee of old line life insurance examinations might prevail in most localities. However, if the physical findings indicate some particular defect, as low sugar tolerance, asthma, latent syphilitic infection, high blood pressure, anemia, changes in vision or reflexes, necessitating laboratory procedure, it will, of course, be necessary to increase the fee accordingly.

The office of the examiner should be warm. 75 degrees. A flannel or sheet might be provided for protection of the patient while the examiner

proceeds from one area to another. The usual firm examining table can be used.

The following instruments are needed:

Stethoscope.
Thermometer.
Tongue depressors.
Tape measure.
Laryngeal mirror.
Fallqvists hemoglobin scale.
Vision chart (Snellen).
Rubber gloves.
Weight scales.
Complete urinalysis set, including microscope.
Nose, vaginal and rectal speculums.
Ophthalmoscope, reflex hammer.

It must be remembered we are not dealing with a diagnosis of established disease, but rather an estimate of health of certain individuals. When we have the sum total of this examination it may be necessary to make further detailed examination to determine location, extent and character of disease processes. Under question number five of our blank it might be necessary to give directions to the patient about correction of defects noted, together with non-technical wording of measures possible for the patient to follow.

If a physician so desires he may give the patient a rating when the examination is completed. Quite possible the patient will demand the doctor's opinion. If so a certain average may be given. A plus—Physical condition unusually good. A—Good health, no defects. B plus—Infinitesimal defects. B—Minor defects of a more serious nature. C plus—Serious correctable defects. C—Disabling defects, communicable diseases.

It will be necessary for each doctor to have a follow-up system to insure success, correct defects, and properly supervise the health of his patients. Correction of defects should not be compulsory, but that the physician is anxious about the development of those he has examined.

Diseased teeth or disturbances of vision demand immediate attention and the patient should be so advised. Physical examinations are only the first step. Our entire efforts will be completely lost unless the follow-up system is effective.

Instead of so many Christmas presents and birthday presents, one cannot give a better present to a friend, or one in need, than a certificate to a doctor for a complete physical examination. These examinations, together with the follow-up system are going to bring humanity back to

a realization that the family doctor after all is more interested in the health and welfare of a community than all other agencies combined.

A statistician published figures showing that in 1921, there was expended in the United States an average per capita of \$10 for candy, \$9 for education, 50 cents for chewing gum, and 29 cents for health.

We must not forget that the power of a nation and the happiness of our people depend upon the health of individuals.

DISCUSSION

Dr. R. H. Hayes, Chicago: A few years ago a body of laymen in New York instituted an organization which they deemed it advisable to broaden until at this time it extends throughout the country. In this organization they choose their own physicians, in the larger communities especially. Ex-President William Howard Taft is at the present time one of the vice-presidents. They saw the necessity for periodic physical examinations.

Now, you may have a patient, a well-to-do individual. He reads the publications, the magazines and the newspapers from other cities. He sees there the New York Life Extension Institute advertisement. He takes warning, consults some member of their organization who has had direct connection with them, sends his report of a superficial physical examination and a urine specimen to New York with the result that he soon receives a letter from the Institute informing him that he has some disability; that he had better consult so and so in such a place. You can see where that is going to help us home physicians but very little. They are doing a thriving business. It is taking money out of the practitioner's pocket, out of your pockets. It is education of the laity by correspondence through this institution, not an education of the patient through his own physician.

Thanks to the foresight of the Illinois Manufacturers' Association and some of the hard working physicians in Illinois, an organization was incorporated in Illinois to benefit not only the public but directly benefit the physicians. I was very glad last night after talking to the secretaries of the county societies to see the great amount of interest manifested in this movement. It is because of this interest by the secretaries and other members of the profession that I am glad Dr. Kuhn came up here and gave this talk. We are receiving hearty cooperation throughout the state and when you doctors realize that this movement is not a detriment to you but is a direct asset, that it is for you and for the benefit of the public, that there is no lay organization trying to take anything from you, but is really trying to do something for you, we know that your cooperation and your support will be heartily given.

Dr. Edmund D. Levisohn, Chicago, said: I am speaking on this subject from the experience I have gained as an industrial surgeon. In my association

with industrial surgery I have made a practice for a number of years to examine men for employment. I do not go into a general physical examination such as Dr. Kuhn outlines, but limit my examinations to the eyes, ears, heart and lungs. Also hernias and venereal disease. Positive findings have caused me to reject such applicants for employment.

The result of these findings have netted the employers a considerable return in savings from fictitious claims for compensation due to defects in hearing, blindness or diminution of vision from various causes, hernias and certain claims which arise from complications of venereal infections. In all of my eye examinations I have made it a rule not to allow a man to assume employment until he has a proper lense correction. In this way I have made something like fifteen thousand examinations without having a loss due to eye injury from inability to use the eyes properly.

In private practice this examination would be insufficient and, as Dr. Kuhn outlines, would have to be considerably more thorough.

Personally I do not believe that I can agree with Dr. Kuhn that the old time life insurance fee for the physical examination he is desirous of inaugurating is sufficient. However, that is a question we can meet later. I do think the question of periodic health examination is a question to which we should give considerable serious thought.

Dr. Leroy P. Kuhn, Chicago (closing the discussion), said: I wish to call your attention to this chart which I have prepared (indicating chart on the wall) as a means of getting this organization out into the different towns and counties of the state.

All above the center line represents state organizations. Those below, the smaller towns and villages and city organizations. You would be surprised to know the great interest that is taken in this work by the laity. It seems to me that the doctors are just a little behind in this movement. It is something that is going to concern the medical profession more than anything that has come to our attention for a long time.

I noticed just last week in the Journal A. M. A. that periodic health examinations have been taken up in New York by representative municipal organizations, civic organizations, industry, chambers of commerce and the medical profession. All of these organizations joined in a mass meeting on April 15, showing the urgent need of periodic health examinations. The meeting was held under the auspices of the Brooklyn Health Examination Committee and the Kings County Medical Society. The state was represented by the District Health Commissioner and other members and a great deal of interest was taken. They had a large attendance at the meeting.

That is one way of getting the different organizations.

Mr. Butterworth, who is president of this association, a large manufacturer in Moline, Ill., has prepared a speech which has been given out over the radio

two or three times during the past winter. I have brought with me today probably a hundred inquiries following this speech by Mr. Butterworth.

I would like very much to see the Illinois State Medical Society, through its county associations, take hold of this subject, and give it the encouragement that I believe it warrants.

THE RELATION OF THE GENERAL PRACTITIONER TO THE TUBERCULOSIS PROBLEM

R. T. PETTIT, M. D.

OTTAWA, ILL.

It would have been of more interest to hear the few remarks I have to make regarding this subject when considered with the other papers on tuberculosis and the chest which were given this morning. Owing to the fact that Dr. Kuhn had to return rather suddenly to Chicago I changed places with him on the program. My remarks on this subject will be very short indeed, just merely to call your attention to certain phases of the tuberculosis problem, and what we in the Illinois Tuberculosis Association, together with the Illinois State Medical Society, are trying to do.

Those of you who were here this morning and heard Dr. Palmer's paper on the treatment of tuberculosis will remember that he emphasized two points particularly with regard to our modern conceptions of treatment. We are coming to believe that rest, absolute bed rest, is one of the most important, rather than one of the least important things in the treatment of pulmonary tuberculosis.

Another important thing in the treatment of tuberculosis is education; education of the public, education of the patient, and education of the physician. With regard to the education of the public we have made tremendous strides. When the National Tuberculosis Association was organized in 1904, twenty years ago, in Washington, Sir William Osler, who presided at the initial meeting, made the prediction that by the education of the public, giving to them knowledge that we possessed at that time regarding this disease, its prevention, its diagnosis and treatment, that it would be possible in thirty years to reduce the mortality 30 per cent. By the education of the public (and for this educa-

*Read before the Section on Medicine, Illinois State Medical Society, Springfield, May 7, 1924.

tion we are indebted to the medical profession) instead of reducing the mortality from tuberculosis 30 per cent. in 30 years, we have cut it in half in twenty years. What the irreducible minimum will be in reducing this mortality of course no one of us at this time knows, but it is without question possible to reduce it very much further.

One of the most important things in the reduction of this mortality is in the early diagnosis, and that must necessarily rest in the hands of the doctor who sees the patient first. We must educate the public regarding the symptoms of tuberculosis in the way that we have educated them regarding the symptoms of appendicitis. We must have doctors educated to take care of these cases. This is not expecting too much of the medical profession. There is still much room for the education of the medical profession in physical diagnosis of the chest.

With this in mind the Illinois Tuberculosis Association, in conjunction with the Illinois State Medical Society, has formulated a program of education for county medical societies, "Schools of Instruction," if you please, of one day's duration, that will be given to the various county societies in the state of Illinois that ask for it. A letter was sent out to the secretaries and presidents of the various component societies, and I am very happy to say that almost without exception the county societies have replied and asked that this School of Instruction be brought to them.

The school of instruction will be practical. It will deal with the discussion of the practical problems of diagnosis and treatment; not the reading of papers, but the demonstration of the methods we have today in common use handling this disease. The first meeting was held in Madison county, at Edwardsville, on the fourth of last month. Dr. Fiegenbaum, who is secretary of that society, "The Madison County Doctor," has these few remarks to make regarding that first meeting:

The first School of Instruction in Tuberculosis, for physicians, ever held in the United States, was held in the State of Illinois, and Edwardsville, in the County of Madison, was selected for the first session of that school. The session was held on April 4, 1924, and was an all-day session, conducted by four instructors, each one qualified as an expert in tuberculosis. Thirty-five physicians attended the session and gave strict and

interested attention during the long day, which did not end until 6 o'clock in the evening.

This plan marks an epoch in tuberculosis work and we predict for it a great future. This plan originated by Dr. J. W. Pettit and endorsed by Dr. E. H. Ochsner, President of the Illinois State Medical Society, and the Council of the Illinois Medical Society, will stimulate interest in this subject and will inaugurate careful study and research by the average practitioner which cannot help but be of great benefit to the citizens of our country and state.

The next school is in Adams county, and various schools will be held during the year. It will not be possible to hold them in every county. In some instances a number of counties will be grouped. You are invited to attend these schools and we hope you will find them of benefit and interest. I hope this will be the starting point for an educational movement, not only in tuberculosis, but in schools of instruction in this state, as it is in Pennsylvania, for the discussion of various subjects that are of interest to the physician. There is no reason why the American Society for the Control of Cancer should not contribute something to the practitioners of this state. There is no reason why the American Society for the Study of Goiter and other societies interested in different types of disease may not also follow this plan and bring to the members something in the way of a post-graduate instruction, something that they can use in their daily work.

MOTHERHOOD ENJOYABLE TO WOMEN

In "Woman, a Vindication," Ludovici declares that he does not believe that childbearing and nursing are hard on a woman. He says, "In making him believe that he gets all the joy and that she gets all the suffering from the sexual life, she gives him a constant sense of guilt or at least indebtedness that makes him submissive. But the whole attitude is of course pure misrepresentation and fraud. For the very idea that the performance of a natural function should be painful and an occasion for 'self-sacrifice' is obvious nonsense. Healthy, honest women will confess that they enjoy every moment of motherhood."

TOO LATE

Two Scotchmen decided to become teetotalers, but MacGregor thought it would be best if they had one bottle of whisky to put in the cupboard, in case of illness.

"After three days Sandy could bear it no longer, and he said, "MacGregor, I am ill."

"Too late," said MacGregor; "I was ill all day yesterday!"

Society Proceedings

ADAMS COUNTY

Meeting of Oct. 13, 1924

Dr. John L. Porter of Chicago was the guest of the Society on this day and began his program by conducting an Orthopedic Clinic at Blessing Hospital beginning about 10:00 A. M., examining some 20 patients presenting various types of deformities. A luncheon was served at 12:30 P. M. at Blessing Hospital in Dr. Porter's honor at which there was an attendance of 32, Dr. John A. Koch president of the staff at Blessing Hospital presiding. The evening meeting was held at the Chamber of Commerce with Dr. Warren Pearce in the chair. The total attendance at the clinic and meeting was 41, including 37 members.

Dr. Porter presented an interesting paper entitled, "The Differential Diagnosis of Spinal Diseases," which was illustrated by lantern slides. The paper was discussed by Dr. Shulian, Shawgo, A. H. Bitter, Koch, Williams and finally closed by Dr. Porter.

Dr. Pearce gave a brief report of what the Arrangement Committee for the Illinois State Medical Society meeting had accomplished to date. Dr. Cohen reported for the committee that had been appointed to investigate the desirability of forming a clinical association and stated that the committee felt that such an association should be organized. Dr. Cohen then passed a slip around for all those to sign who desired to affiliate themselves with such a clinical association. Dr. A. H. Bitter reported that the Quincy Telephone Exchange had refused to transfer physician's calls and stated that such a condition would prove a great source of inconvenience to the local physicians. He made a motion that a committee be appointed, with Dr. Swanberg as chairman, to investigate the desirability of forming a local telephone exchange for the use of physicians. Seconded and carried. The Chair appointed Drs. Swanberg, Koch and Jurgens on the committee. The Secretary read a communication from Dr. John Hund of Peoria, in regard to purchasing booklets for distribution among the laity. It was moved, seconded, and carried that the Secretary write to Dr. Hund that the Society did not wish to purchase any copies at this time. The Secretary read a letter from the Chairman of the Legislative Committee of the Illinois State Medical Society pertaining to the candidacy of Senator Gray of Coatsburg. It was moved that the letter be placed on file. A motion for adjournment was then in order and the meeting adjourned about 10:45 P. M.

HAROLD SWANBERG, M. D.,
Secretary.

CARROLL COUNTY

The Carroll County Medical Society held its fall meeting at the parlors of the Savanna Public Library, Monday, September 22. The session was called to order by President Alexander Gray; members present seventeen; visiting doctors, ten; nurses and visiting ladies, seven.

Minutes of the previous meeting read and approved.

The first on the program was a paper by Dr. Melugin of Thomson on "Reminiscences." He spoke of his recollections of the country doctor of his boyhood days, then of his own experience as a physician for over forty-five years in one locality and the great improvement that medical science had made in the last half century.

Dr. Hendricks of Lanark read a very interesting and instructive paper on "Rheumatic Endocarditis in Childhood." The paper was freely discussed by those present.

Dr. Edward Ochsner of Chicago presented a paper on "Chronic Fatigue Intoxication." This condition the doctor has been studying and experimenting with for many years. He said it is a disease that has been much neglected and poorly understood and has been a stumbling block to both medicine and surgery as it resembles many other conditions but when recognized and properly treated the patient will not fall in the hands of the charlatan.

No further business, the meeting adjourned.

MARY A. SAGNER,
Secretary.

COOK COUNTY

CHICAGO MEDICAL SOCIETY

Meeting of October 22, 1924

Causation and Treatment of Mental Disorders. Illustrated with Lantern Slides.

Henry A. Cotton, New Jersey State Hospital, Trenton, N. J.

Discussion:

Archibald Church and H. I. Davis.

Meeting of October 29, 1924

DIAGNOSTIC CLINIC

George W. CrileSurgical Subject
Cleveland, Ohio.

David Riesman.....The Acute Abdomen
Philadelphia, Pa.

Frank H. Lahey.....The Thyroid
Boston, Mass.

C. Macfie CampbellPsychiatric Subject
Boston, Mass.

CHICAGO LARYNGOLOGICAL AND OTOLOGICAL SOCIETY

Meeting of Nov. 5, 1923, Concluded

Clinically it is frequently desired to secure permanent volume changes in nasal capacity. One of the persistent symptoms of a continued rhinitis is a weakening in the tonicity of the vessels of the turbinates resulting in a fluctuating, or more or less persistent, mass obstructing breathing. The discussion pointed out how this hypotonicity may be eliminated by copying physiological means of constriction.

Dr. A. J. CARLSON said that in the discussion of this physiological paper where every step had been proved he was grieved that some of the gentlemen had talked too lightly of matters of theory as if they were demonstrated facts. He wished to know what the speakers or anyone else had done to show that the pathological conditions described were due to focal reflexes, and thought they should talk with more hesitation until this had been done. If we keep repeating an hypothesis often enough some of us think the hypothesis is a demonstrated fact.

and the "urge" to replace theory by demonstrated fact is lost.

DR. J. GORDON WILSON asked Dr. Carlson if it were not the case that we could have in the venous channel of the nose a local reaction of dilatation or constriction brought about through changes in the blood circulating there.

DR. CARLSON replied that this was true under certain conditions. That fact and the proof that that kind of reaction is involved in any one of the phenomena described by Dr. Tatum was certainly taking for granted many things that have not been proven. He believed that the gentlemen had assumed too much, that they could hypnotize themselves and that if they repeated this long enough they would think it had been proven.

DR. NORVAL H. PIERCE said there was no doubt that those who had discussed the paper were not physiologists. There is a good deal of loose thinking even among physiologists, but medical men had to think, they had to attempt to reason in their work, especially if the physiologists have been so dilatory in their work as not to have made all things clear.

DR. TATUM (in closing) said in regard to the pathology of the nose that he would make a parallel to inflammation elsewhere. It is well established, he thought, that inflamed tissue involves blood vessels which are relatively irresponsive to vasoconstrictor agencies. He was not sure that these reflexes he had described could be elicited equally well in pathological conditions and he would not say that the pathology might not alter the responsivity.

In regard to the negative pressure, that seemed logical and he would be glad to try it out. He had not used positive pressure to any extent, using very slight positive pressure only.

Regarding the reflex action, Dr. Tatum said that this method of plethysmographing a viscus is the most sensitive of any he had had the good fortune to try. It is easily established and exceedingly sensitive. In his hands, in animals that were anesthetized, he obtained no response after section of the cervical sympathetics, indicating a necessary nervous reflex. Of course, these animals were abnormal when they were anesthetized and what they would have done had they been conscious and normal he did not know.

Dr. Tatum said he had thought about the alternate changes a good deal and believed that some might be a nervous affair. One individual had reported to him after he had heard of this work that he had tried partial asphyxia because he was subject to intumescent rhinitis. He tried it at night and obtained relief for a considerable length of time.

In regard to the question pertaining to the effects of want of air after one had held his breath for a time, Dr. Tatum said this was not immediately evident. The increased patency was not evident until after the lungs were fairly well ventilated again. It was his habit to breathe normally for several breaths, until he did not feel air hunger and was not asphyxiated. Three or four breaths would usually suffice, after which objective or subjective measurements are safely made. If he breathed harder and respired a greater volume of air it was difficult to compare the resistances, for obviously resistance is a function of both rate-volume of air flow and of diameter of passage.

CHICAGO OPHTHALMOLOGICAL SOCIETY

November 19, 1923

DR. ROBERT VON DER HEYDT, President CHRONIC ANGIOSPASM OF PALPEBRAL ARTERY

DR. GEORGE F. SUKER presented a young who, ever since she could remember, had a "linear" twitching of the right lower lid. She is unconscious of it, and upon close examination one finds a spasm of the inferior palpebral artery there localized, about 3 cm. in length. He had tried everything to check it, but had not succeeded. The only thing he thought would answer is ligation or excision of the vessel. However, the lesion is such a minor one that this is not worth while. The

case is of interest on account of its extreme rarity. He had made a diagnosis of chronic angiospasm. What the etiology is he is unable to ascertain. Patient is healthy. Her personal and family histories are good. She is not neurotic or hysterical. She is blemish free, and he exhibited her to show anatomic rarity.

LIPEMIA RETINALIS

DR. I. J. MUSKAT read a paper on this subject:

DISCUSSION

DR. GEORGE F. SUKER said that the discovery of lipemia retinalis was always accidental. There was no case on record in which vision, aside from the usual diabetic fundus lesions that might arise, had been reduced. Vision was generally normal. Whether it is true fat, or allied to the lipoids remained to be seen. The lipemia lasted but a few weeks, when the entire retina returned to its normal appearance. During the vessel changes, the adjacent retina was not implicated. No vessel pulsations were seen during the attacks of lipemia.

The prognosis had been considered extremely serious, much more so than the characteristic change of so-called diabetic retinitis. That this condition did not more frequently occur was rather strange. This was the first case of lipemic retinalis the speaker had discovered in his service at Cook County Hospital, though diabetic cases were quite numerous. According to the literature, one got similar cases with alcoholism and certain types of malnutrition, even in scurvy, but whether there was a true relationship he did not know. One peculiarity of this lipemia was that the substance did not give the characteristic stain with osmic acid.

DR. HARRY S. GRADLE asked Dr. Muskat whether he had paid any attention to the tension of the eyeball in this condition, as in some forms of diabetes it was very important. Hertel, in 1912, in speaking of diabetic coma, described the eyeball as soft and mushy, so soft that tension could not be recorded. Such a hypotonicity occurred only in diabetic coma, but it was not necessarily an accompaniment of it, and it would be interesting to know whether there was any variation in the tension of the eyeball during the time the lipemia was observed.

DR. CHARLES G. DARLING stated that some ten years ago he reported a case similar to the one narrated. At that time there had been only 8 cases reported, with only one previous American case. The tonometer had just come out then, and they were interested in taking the tension of the eye. The man lived six weeks after the condition was discovered, and the tension remained normal all the time. In this case the patient's retina remained the same under dietary treatment. He did not know the history of the subsequent cases reported, but up to that time one case was reported in London in which the patient had this condition for four weeks and it cleared up. He did not have diabetes. He had 8 per cent of fat in the blood. The vessels, as a rule, looked pink where they curved up from the disc and became whiter toward the termination of the vessel. The less blood there was in the vessel, and the smaller the vessel, the whiter it was. In the case reported tonight, when first seen, the blood vessels were much whiter than in the illustration from the article that came out in September in the Johns Hopkins Bulletin. These vessels rapidly became more normal in color. Most of the patients who had this condition had been young individuals. Very few had lipemic retinitis after the age of forty.

DR. SUKER said he did not know whether Dr. Muskat took the tension or not, but he took it with the finger and found it was normal. At the Cook County Hospital the tension of the eyeball was taken in the majority of cases with coma.

OPHTHALMOPLEGIA IN LUETIC BASILAR MENINGITIS

DR. A. H. PEMBER reported the case and said there were three similar cases admitted to Cook County Hospital in one week:

DISCUSSION

DR. GEORGE F. SUKER said that the point of interest was the homonymous hemianopsia in addition to ophthalmoplegia ex-

terna, combined with a pseudo Argyll Robertson pupil. He said it must be a dual lesion, one central and the other peripheral, to give the patient homonymous hemianopsia, which was improving to a certain extent, and the ophthalmoplegia externa. The chances were that the homonymous hemianopsia was due to a luetic process of optic atrophy, and the ophthalmoplegia was due to a nuclear paralysis, not a complete ophthalmoplegia externa and interna, because the superior oblique was somewhat active.

He believed syphilis was the primary cause of the optic atrophy, because one could see an incipient inflammatory condition of the disc edges. The spirochete had been isolated in several instances along the nerve tract, showing that the optic atrophy was not an ascending but a descending process. This held true from a clinical standpoint very remarkably in this man. The important thing was the homonymous hemianopsia which was synchronous in the two eyes; he had previously the same condition in his right eye that he now had in the left. In beginning tabes, even in paresis, the incipient atrophy might manifest itself a partial hemianopsia, usually in the upper outer temporal field, long before the general symptoms. As to the prognosis or final outcome in this case, he predicted that it would lead to a parietic dementia.

Dr. Jacob Lifschutz wondered if this case could not be explained on the ground that the lesion was in the visual area on one side in the brain, and also in the nuclei of the muscles on the left side. He did not see why this could not be the case where one had two lesions, one peripheral, and one nuclear. Possibly the brain itself was involved, or the nuclei of the muscles in the visual area.

Dr. Suker maintained duality of the lesions because there is homonymous hemianopsia, which developed in the right eye and then in the left. If it were a central lesion, the patient would have had a symmetric hemianopsia in the two eyes. There mere fact that it was improving was an important point, because central occipital lobe lesions giving homonymous hemianopsia on a syphilitic basis very seldom markedly improved. It was only the peripheral lesion in syphilis which had a tendency to recuperate rapidly. Central lesions were longer in recovering, if ever, to complete restoration. He did not think this individual would recover, and what was more, in a central lesion there were no manifestations in such a short time of optic atrophy at the periphery; therefore, the lesion was between the eye and the chiasm, and not back in the primary centers or in cuneus lobe. If it were in the latter it would be symmetric.

SEVERE BURN OF UPPER LID

DR. ROBERT VON DER HEYDT showed a young man, whom he presented to the Society eleven and a half years ago. At that time the patient was injured by severe burns of the body, face and eyes. He was carrying a pail of nitric acid in the composing room of a newspaper, and fell into the nitric acid, and he sustained, besides other burns, a severe burn of the upper lid, which resulted in an ectropion, to the extent that the brow and lid hairs were bound together. There was palpebral conjunctive which showed to the extent of a dime. He put in a Wolfe graft, and six weeks later he showed the patient to the Society. He now exhibited the case to show the perfect result obtained.

DISCUSSION

Dr. Suker congratulated Dr. Von de Heydt on the excellent result he had obtained in this case. The reason he obtained such a result was that he did not use a genuine thick Wolfe graft, but a modified Wolfe graft a la Thiersch. A thick graft, which takes in the corium, is apt to shrink and give trouble. A graft taken from the upper layers of the skin will do very nicely, and give a result such as Dr. Von der Heydt obtained in his case.

OPERATION FOR SENILE CATARACT

DR. HARRY W. WOODRUFF, Joliet, Illinois, presented

a patient who was admitted to the Infirmary May 24, 1921, at the age of 43, with senile cataracts in both eyes. Vision in the right eye was 20/50, and in the left eye, with the cataract almost mature, 10/200. Colonel Smith operated his left eye by the intracapsular method. There were no complications according to the record. Dr. Fisher saw this case with the other cases operated by Colonel Smith. At the time he left the Infirmary, the record showed his vision to have been 20/50. Dr. Fisher had him tested and found his vision was 20/20. His vision now in the eye operated on is 20/20 with +12.

Patient presented himself again in September last for operation on his right eye. This operation was performed October 1st of this year. The capsulotomy method was used, and simple extraction was performed with a sliding conjunctival flap; eserine was used, and recovery was uneventful. A needling operation was performed November 12. His vision in the right eye with +11, with cylinder, is 20/15.

The particular point to emphasize in showing this case is that one eye was operated on by the most distinguished cataract operator in the world. The visual result was normal. Attention is called to the fact that the patient is a comparatively young man, 43 years of age, at the time of the first operation. Authorities including Colonel Smith himself call attention to the respective ages at which the intracapsular operation is most apt to be successful.

Many ophthalmologists have examined this case, mostly with magnification and illumination, and have seen in the drawn up pupil the presence of a membrane extending from the lower border of the pupil to the corneal wound, with adhesions of the iris to this membrane, pigment showing, and also adhesions of the iris to the corneal wound. Notwithstanding this membrane which partially fills the pupil, particularly the central portion of the pupil, he has remarkably good vision, and it is due to the fact that there are clear spaces on the margins of the membrane.

A point to be emphasized is, that one should not allow his enthusiasm for certain particular methods of operating to cloud his judgment. Of course, Colonel Smith was in this country for the purpose of demonstrating a particular operation, and it is not with the idea of criticizing Colonel Smith as an operator, but to call the attention of the Society to the point that there are certain restrictions. The speaker believes that men of the age of this patient or younger, with cataracts coming under the classification of senile, should not be operated by the intracapsular method.

In this particular individual, the opportunity afforded itself of showing the results with the two methods of extraction. The visual results are practically the same so far as testing with the best types show, but the visual results must be better in an eye with a physiologic pupil than in one that is immobile and has a large coloboma in the iris. He also emphasized the fact that one can with almost certain safety perform a simple extraction without the danger of prolapse of the iris, which is the bugbear in simple extraction, if one use

the sliding conjunctival flap, sometimes called the "Van Lint flap," bringing down a flap of conjunctiva and placing the sutures at an angle; so when the flap is drawn down over the cornea it is on somewhat of a tension, acting as a splint, thereby holding the corneal flap well down. The ordinary conjunctival flap is not very much of a protection against prolapse of the iris, if any, but the sliding conjunctival flap is a very positive and definite protection.

DISCUSSION

Dr. William A. Fisher, in referring to the case operated by Colonel Smith and reported by Dr. Woodruff, said that he only brought the patient to the Society on a previous occasion because his vision was 20/20. This case would have been rejected by Colonel Smith if he was operating for statistics, but we all knew he did not reject any. This case was not one for an amateur to remove the lens in capsule. The amateur should select patients sixty years of age, or over, because the zonule is hard to break if the subject is young. There was no objection to an expert operating at 43, and there was no objection to removing lenses and leaving a round pupil. The only reason for an iridectomy is to prevent prolapse of the iris, and this can be prevented, or the percentage reduced, by a small peripheral iridectomy (Hess). A round pupil, such as Dr. Woodruff presented, was desirable if iris prolapse was not more frequent than with iridectomy.

The membrane that Dr. Woodruff spoke about in the upper edge of the wound in Colonel Smith's case was undoubtedly a burst capsule. If the capsule burst in the upright delivery it fell into the vitreous, but if the zonule broke below and the lens tumbled, and the capsule ruptured, it was found hanging in the wound and could be removed. In this case, there was a burst capsule which was removed with forceps, but a piece was left in the wound. The operation in this case by Colonel Smith, even though the patient was only 43, was attended with a perfect result—no postoperative inflammation and vision 20/20.

Dr. Woodruff stated that although Dr. Fisher said Colonel Smith could operate on any eye at any age by the intracapsular method, it was a question whether Colonel Smith should operate on every eye at any age. It was quite generally conceded that age does make a difference regarding the particular method that is used. He mentioned an article by Dr. Dorland Smith, of Bridgeport, Connecticut, a year ago, in which he (Dr. Smith) attempted to classify the various cataracts. Smith had made a pilgrimage to India and did the Smith-Indian operation, but he attempted to classify the various kinds of cataracts and also the various ages at which the intracapsular operation was better performed or better not performed. He believed in the last analysis of this subject, it would be shown that it would be more nearly the correct opinion to operate on eyes at different ages by different methods, as the lens capsule was thicker and more firm at certain ages, as well as the suspensory ligament, and it was not reasonable to suppose that one particular operation should be the procedure for any age.

LYMPHOSARCOMA OF LID

DR. JACOB LIFSCHUTZ presented a man, 40 years of age, first seen on October 19, 1923. Patient stated that he had never had any previous eye trouble until four months before he came to the clinic, at which time he noticed a growth on the inside of the left upper lid, causing drooping of the lid and irritation of the eyeball. No history of disease of the eye could be obtained, nor of irritation, trauma, or growth. His blood Wassermann was negative.

Examination of the eye showed the reflexes, motility and tension normal. There was nothing in the interior of the eye. His vision is 20/40 in the right eye and 20/20 in the left. Examination revealed a tumor quite vascular and very well defined extending along

the horizontal meridian of the upper lid, beginning from the lower margin of the tarsus, but not including it, all the way down to the retrotarsal fold. The tumor is very hard and of the consistency of cartilage. He took out a vertical piece for section. There is no infiltration anywhere beyond this region; there are no palpable glands, and altogether there are no symptoms which would indicate malignancy. Examination of a slide by Dr. Lane showed no tissue on which one could make a diagnosis. There are several rows of epithelium which have undergone mucoid degeneration. There are some newly formed vessels, plasma cells, and a great deal of infiltration of round cells. The probable diagnosis lies between a granulation tissue tumor, due to a reaction to chronic irritation, and lymphosarcoma. The specimens do not show anything definite. One might have to remove the tumor and section to find out what the growth really is.

DISCUSSION

Dr. Harry S. Gradle asked Dr. Lifschutz if, in examining these specimens, he considered the possibility of circumscribed conjunctivitis hypertrophica intracellularis, which was described some years ago by Paescheff. This is usually not circumscribed, but a diffuse condition involving the entire conjunctiva.

Dr. Lifschutz said he had made a preliminary report. Sections were removed and stained, and he proposed to present the case later with slides. The only way to make an accurate diagnosis was to make a microscopic examination. So far the sections did not show anything. He took a vertical section from a tumor mass.

Dr. Von der Heydt asked whether there was anything connected with the case which made Dr. Lifschutz think of sarcoma.

Dr. Lifschutz replied that what made him think of sarcoma was the rapidity of the growth, and the great number of mononuclear leukocytes. He had never seen a case like this. In view of the fact that the man received no injury and the tumor started to grow and spontaneously attained its present size, the probability was it might be a malignant growth. He did not know whether it was a wise thing or not to remove a section. It might have been a mistake, and yet this section was negative.

Dr. Von der Heydt said that a sarcoma of this size might produce a mild Wassermann reaction.

Dr. Lifschutz asked the members as to the advisability of removing sections of such cases for examination.

Dr. Suker replied that from a general surgical standpoint it was not advisable to make sections for staining unless one had a frozen section and determined it then and there. This was Billroth's general surgical principle and it held true today. Any tumor one wanted to examine should be examined by the frozen method, and one should decide to remove a part of it, if not remove it entirely, and then make a section. That was the better plan.

TUMOR OF THE UPPER LID

DR. CHARLES F. BURKHARDT, Effingham, Illinois, reported the case of a patient with a tumor, that he saw a year ago. The reason for reporting the tumor was because of its rarity. The man complained of something which he said was like a scum over one eye. He kept rubbing his eye, but the scum would come back. The speaker everted the upper lid thinking there might be something under the lid creating irritation. He found under the upper lid a small tumor mass, about five millimeters in diameter, lying closely in contact with the conjunctiva of the lid. He everted the periphery of the disc shaped mass, which was attached

at the center to the lid by a pedicle one millimeter in thickness. He noticed it was very movable, and the lower surface of the tumor was concave in conformity to the eyeball on account of the lid action. Assuming that there was perhaps a small pedicle attaching the tumor to the lid proper, he dropped a little cocaine into the eye, and then with a very small snare wire, snared the growth off, and the pedicle was not more than a millimeter in diameter. Recovery was uneventful.

DISCUSSION

DR. HIRAM J. SMITH said he had not seen a tumor like the one reported by Dr. Burkhardt, but recently he saw a growth of the conjunctiva following an operation, which resembled in external appearance and on microscopic examination the tumor mentioned. This tumor was pedunculated and came from a stitch. It was about the size of a shoe button when removed, and how much larger it would have grown he did not know. Microscopic examination showed it to be a granuloma.

INTRA-OR EXTRAOCULAR FOREIGN BODY?

DR. WILLIAM A. FISHER reported the following case and presented the patient, because paper of the evening was magnet operations: H. Morgan, aged 18, was injured September 16, 1923 by striking a piece of metal with a hammer. He saw the patient one week later, and found the lens partially opaque, quite the same as at this time, and vision 4/200. The eye looked as though a foreign body might have penetrated it, and an X-ray was made by Wheeler, Sinclair, Cotchy and Wiese with a negative result. They applied the giant magnet after getting the negative X-ray report, but this was also negative.

Another X-ray was made a few days later for the insurance company (by Potter). This X-ray located the foreign body in the eyeball. They came to him again with this information, and in consultation with Dr. Faith, another X-ray was made by Hubeny and the foreign body located outside of the sclera. The magnet was again used but with a negative result. Then an effort was made to remove the foreign body through the conjunctiva at the temporal side, which would have been a very difficult feat to perform, but would have been very satisfactory to the patient if the foreign body had been removed. The eye is now quiet, and the pupil is active; there are no adhesions of the iris, same opacity as at first examination and vision is 4/200. The only evidence of injury he has is the opacity of the lens and the redness of the conjunctiva at the temporal side, where an effort was made to remove the foreign body.

He is 18 years old and the lens may become absorbed. It is now two months since the injury, and no trouble need be expected from infection, and if the foreign body was outside of the eyeball, as he fully believed it was, no trouble need be expected from it. While X-ray pictures were very valuable and appreciated, this case proved that one could not always rely upon an X-ray picture even though made by experts as in this case. The only question regarding this case was whether or not an opening should be made in the eyeball, and an attempt made to remove the foreign body, which one expert believed to be in the eyeball and

another outside of it. He did not consider this justifiable.

DISCUSSION

DR. THOMAS FAITH said he saw the case reported by Dr. Fisher, and the important question arose whether an attempt should be made to search for the foreign body through an opening in the sclera. One X-ray picture was negative, while another localized the foreign body just inside the sclera, and a third one just outside the sclera. At the present time he thought there was no justification in opening the sclera for the removal of the foreign body, as it was not known whether it was in the eye or not. Personally he tried to locate the foreign body outside of the eye without success. One should remember in this connection that some of these pieces of steel were so situated that it was impossible for them to attract the magnet, even though one might feel that the foreign body was inside the eye.

DR. WOODRUFF asked Dr. Fisher if he had accurate localization charts presented to him by the X-ray operators. One of the most satisfactory cases he had had to deal with was one where the foreign body in the eye had been localized by a man who knew how to localize it, and who furnished one with a chart, and it was very rarely that the foreign body did not lie exactly where the chart indicated. He referred to the work of Dr. H. P. Wells who had done his X-ray work. It seemed to him that if a young man had the power to focus his other eye and to hold it perfectly quiet, so that two pictures could be taken without any movement of the eye, and the correct mathematical computation made, it was about as accurate a proposition as one could have.

DR. G. HENRY MUNDT agreed with Dr. Woodruff that localization of foreign bodies was a very valuable adjunct to removal of foreign bodies, and said that it had been a satisfactory method to him for the location of foreign bodies in the globe or orbit. He thought in some cases the easiest method was the use of the scissor extension of the magnet. He used this method for the first time about a year and a half ago, in the case of a foreign body that penetrated the globe. It was quite large and he had considerable difficulty in getting the foreign body out, until he went down on it with scissors and by scissors extension removed it. He believed this was an admirable method of removing a foreign body when it was in the orbit. He read this two years ago in an article by Dr. Edward Jackson.

DR. DARLING said it was a question whether a foreign body in the orbit should be left there, or cut down on with scissors and removed if it had gone through the eye. In penetrating foreign bodies that went through the sclera into the orbit (unless the lens was greatly swollen, setting up an iritis), the eye quieted down quickly and usually caused little subsequent trouble.

DR. FISHER, in closing and replying to Dr. Woodruff, said he had had X-ray pictures by Drs. Potter and Hubeny, one picture showing the foreign body inside the sclera, and the other showing it outside. He did not question the work of either one of these gentlemen because they were expert, but one of them must be wrong.

DR. MUNDT suggested a method of removing a foreign body when outside of the sclera, which might have succeeded in this case. Dr. Darling suggested that foreign bodies outside of the sclera clear up rapidly. This eye was clear now, except where one attempt was made to remove the foreign body from under the conjunctiva.

There was no question of a foreign body being present in the eye or on the outside of it, but he was having trouble, and his vision is 4/200. When a foreign body has passed through the lens, it was far safer to dilate the pupil and remove the foreign body through the anterior chamber. No matter where the foreign body was localized, he would not think of going back of the lens to remove it.

IRIDOCYCLITIS AND NEURORETINITIS WITH ETHMOIDITIS

DR. T. D. ALLEN presented the case of a boy, 16 years of age, who just before leaving England for

the United States in August, 1922, became ill with an intestinal condition. On coming to Chicago, he was placed in the Presbyterian Hospital for observation and treatment.

The condition was essentially an ulcerative colitis, associated with marked fermentation, and with superficial erosions of the mucosa of the rectum and probably of other parts of the bowel. He passed large amounts of blood and pus; and had an accompanying daily rise of temperature to 100-102°. He had had for many years a nasal discharge. Part of his treatment consisted in irrigation of the left antrum which had been found cloudy.

A year later he was again taken to the hospital because of a recurrence. After he had been there for several weeks, during which time the left antrum was again irrigated, he developed an acute conjunctivitis and an eye wash was ordered. Three days later the tonsils were removed. Seven days after this was done, the eye became painful and photophobia developed; he was seen the following day. At that time no ciliary tenderness but ciliary injection was present, and the left iris was slightly discolored. Hot applications, a sweat, atropin and an eye shade were ordered. Salicylates were not ordered because of fear of upsetting the bowel. Five days later they were started, 15 gr. t.i.d. Five days after the onset of the iritis, as the patient became steadily worse, posterior synechiae and precipitates on the back of the cornea of the left eye having formed, and the condition beginning in the right eye, Dr. William H. Wilder saw him, confirmed the diagnosis of iridocyclitis, and suggested 5 per cent dionin and foreign protein.

Through fear of upsetting the bowels, the foreign protein was not insisted upon and not used until the ninth day after the onset of the iritis. At that time the patient had a violent blepharospasm, so that the slightest light caused intense pain in the left eye and nearly as severe in the right. Consequently no fundus examination could be made, but it was ascertained that the pupils were not satisfactorily dilated and that there was moderate conjunctival edema. Again Dr. Wilder urged foreign protein.

A small dose of killed typhoid bacilli was given intravenously (about 20,000,000) on July 22. The chill was severe, and the temperature was 102°. The ocular reaction was gratifying; the photophobia and blepharospasm were markedly reduced, as were the ciliary injection and conjunctival edema. The bowel condition also improved in a very gratifying and unexpected manner.

Four days later a second dose (about double the first) was given. This time the temperature went to 102.6°. The condition of the eyes improved, so that it now became possible to use the ophthalmoscope. The right pupil was fairly well dilated; there were deposits on the back of the cornea and on the capsule of the lens; the vitreous seemed clear and the fundus normal. The left pupil was irregularly dilated, several posterior synechiae having formed; there were numerous deposits on the back of the cornea and front of the lens,

so that details of the vitreous and fundus could not be obtained.

Two more doses of vaccine, each of about 60,000,000 bacilli, were given at 4 and 10 day intervals, with but slight chill and temperature of only 100 and 101°. The eyes gradually cleared. Unfortunately, as would appear later, no further attempt was made to view the fundi. He was discharged from the hospital September 5. On October 4th he reported at the dispensary. His vision was R. 20/50; L. 20/100. After homatropin instillation, the right pupil dilated evenly and normally but the left was irregular, being bound by several posterior synechiae, as at present. The right media seemed clear and the fundus normal, but to his surprise, in the left eye, seen through a slight haze (probably entirely due to the exudate on the lens capsule, as no vitreous opacities were seen), the optic disc was slightly swollen, the outlines blurred, and the vessels for some little distance from the disc were slightly swollen and tortuous (not in the plane of the retina); there was no hemorrhage or gross exudate, though the retina seemed slightly swollen.

He was immediately referred to the nose and throat department, where again a shadow was found in the region of the left antrum; the antrum was treated in the routine way, mucopus being found on irrigation. This was continued for five days, when he was discharged from the nose and throat department; but there was no change in the ocular condition; unless, possibly, the neuroretinitis had become worse. The dental report by Dr. Moorehead was that there were several cavities in the teeth but no abscesses.

He was again referred to the hospital, and the routine treatment prescribed, bed, hot applications, atropin, dark glasses, salicylates. A more thorough search was made in the nose. The nasal septum was straightened by Dr. Edwin McGinnis, and when this had been done, mucus was found coming from the region of the left ethmoid cells. The turbinate was fractured and the left ethmoid cells opened up widely. For the following few days there did not seem to be any change in the fundus, but shortly thereafter the swelling began to subside. He was discharged November 12. His vision now (November 19) was R. 20/50; L. 20/70. The swelling of the retina was still discernible, but was very much reduced. The form field was practically normal; also field for red. The green field was not taken. The blind spots were both enlarged, the right one and a half times normal, the left about three times normal. No other scotomas were found.

If we accept the theory that ulcerative colitis was an infectious condition, essentially secondary to some other focus in the body (as is arthritis and iridocyclitis), then we had reason to assume for purpose of discussion that this picture was a unity—a single problem whose solution would naturally lie in the discovery and removal of the primary focus. The antrum of Highmore often acted as a reservoir for the secretions or several nearby accessory sinuses. In this particular case, repeated drainage and treatment of the antrum failed to affect the colitis; and soon after such treatment, while

still in the hospital, the iridocyclitis developed. This would lead him to believe that the condition of the antrum had slight, if any, direct causative influence, and that probably the ethmoiditis had existed for many months.

If the improvement was permanent, it might be assumed that the ethmoiditis was the cause, if not of the origin, at least of the continuance of the pathologic picture. As the foreign protein injection was followed immediately by a rather remarkable reduction in symptoms, both of the intestinal and ocular conditions, it might have led him to abandon the hunt for the primary focus, had not the neuroretinitis been found. Whether the neuroretinitis existed at the time of the uveitis could not be stated definitely. He was inclined to think it did. The tonsillectomy was done a few days before the iridocyclitis developed. He had been told that cures following immediately after tonsillectomy were due to either removal of a focus, or to absorption of certain elements at the site of the wound, which acted as a foreign protein. In this instance neither was the removal followed by improvement of the colitis, nor was there a general reaction similar to that following the foreign protein given a few days later. Foreign protein treatment had a definite place in our armamentarium; but it should not cause us to relax one whit in our scientific endeavors to locate and eradicate the cause of a lesion.

DEDUCTIONS FROM 120 INTRAOCULAR STEEL OPERATIONS

DR. SYDNEY WALKER, JR., said that the symptoms complained of varied in the extreme, from slight discomfort to severe pain. Subjectively, if the lens was uninjured, the complaint was slight, and in many cases there was none. But if complications had developed, such as slight hemorrhage into the vitreous, faint lens opacities, the symptoms were naturally more leading. To him the faintest trace of floaters in an eye which had been injured usually suggested a tentative diagnosis of intraocular steel.

The diagnosis was not always easy. Direct inspection some hours after the accident might fail to disclose any perforating wound, and the reaction present was often slight. In these cases the slit lamp and corneal microscope might disclose a faint perforation of the cornea, or of the lens. Further, small sharp particles at high speed often ricocheted in a peculiar manner, and lodged posterior to the globe without perforating.

The complications which might develop were many and were a large factor in the ultimate outcome. Corneal scars were usually of little consequence; tears of the iris likewise. When the lens was injured we had a serious problem to meet. It was true that the resulting cataract could be extracted, but in the State of Illinois the aphakic eye in the hands of the Industrial Commission was looked upon as industrial blindness. A correcting lens according to the Supreme Court was held the same as a crutch. For this reason many of these cases were left with the cataract unoperated.

Enucleation was indicated in approximately 25 per cent. of all such cases. Industrial patients were handled differently from the average private case. When an eye was blind, inflamed, or should necessarily go through a long siege of inflammation, or when the wound was of large extent and involved the ciliary body, it was to the best interest of all concerned to enucleate. The reasons why such a course was followed were: that the patient was put back in his former earning capacity in a relatively short time, his appearance was better with a false eye than with a shrunken painful dangerous mass, and naturally the expense of a long drawn out temporary disability was less.

What was the future of the eye which had had intraocular steel removed? This depended to a great degree upon the site of the wound, and the complications which followed. As a general average, he could safely state that about 40 per cent. ended with useful to good vision. His cases extended only over a period of four years, approximately 30 each year, and he felt that time would tell the outcome in some eyes which he now claimed as good results.

The ease of removal of the steel depended to some degree upon the length of time elapsing since the injury. Further, in these cases the technic used was of some importance. He had used the Hirschberg hand magnet to the exclusion of all others, and had yet to fail where the foreign body was magnetic. In those cases in which the steel was in the vitreous, and they were the most difficult, he turned back a conjunctival flap over that portion of the ora serrata nearest the foreign body, incised the sclera in the long axis enough to admit the magnet point, entered to within 2 or 3 mm. of the steel, switched the current on and off several times in that position. Should this fail, which was not often the case, entrance was again made, attempting to nearly reach the body with the magnet tip, and the steel removed.

DISCUSSION

DR. HIRAM J. SMITH said that detachment of the retina was the most serious complication he had had to deal with in these cases. Pathologic complications were frequent, especially hemorrhage into the vitreous and later organized exudate, which by its contraction was a frequent cause of detachment. A case now under observation had detachment from this cause a little over one year after the penetrating wound. Patient had had normal vision during the interval with glasses. Dr. Walker was right in saying that the ultimate disability could not be determined until a year or eighteen months later.

During 1921, 41 cases of penetrating wounds of the eyeball were seen. Nineteen cases had a foreign body present within the globe. Complications were as follows: Traumatic cataract, 19; chronic iridocyclitis, 4; hemorrhage into vitreous, 6; secondary glaucoma, 3; detachment of retina, 3; retinitis proliferans, 1; panophthalmitis, 1; infection does not occur as often as might be expected.

One case in which traumatic cataract occurred was

worthy of further mention. At the time of injury, no defect of cornea and no evidence of any intraocular injury was found on repeated examination under a mydriatic. Vision was 20/16. The patient complained of seeing specks and geometric figures before this eye. X-ray indicated a foreign body of one millimeter dimension outside the bulb. About six months later, a stellate, postcortical, lenticular opacity, centrally located, began to be visible, also siderosis. A second x-ray showed a foreign body in the vitreous, just back of the ciliary body, below, in the vertical meridian. This was removed with the magnet through scleral incision without accident. The eye remained quiet, but cataract progressed gradually to complete opacity with corresponding failure of vision. What was the pathogenesis of the cataract in this case, and why did it occur so long after injury? What part did the intraocular foreign body play in the production of the cataract?

Referring to Dr. Fisher's statement about the use of Haab magnet, he had never succeeded with it in cases where the Sweet hand magnet had failed. He was partial to the posterior route for removal of foreign bodies in the vitreous. He did not feel that Dr. Woodruff's experience was unusual. He had found x-ray localization check up quite accurately, and the foreign body was located with magnet, within two or three millimeters of localization shown by x-rays.

DR. WILLIAM A. FISHER. Twenty or more years ago, he imported the first Haab magnet and read a paper before the Society in which he reported 150 cases, which were published in the *Ophthalmic Record*. He spoke of this because the results at that time seemed to be about the same as he was getting now. The results then were good vision in 96 cases, that is, where vision could be improved and made good with glasses. When Dr. Walker spoke about the mattress suture or the conjunctival flap, he recalled that last year he saw Professor Barraquer in his clinic at Barcelona insert a conjunctival stitch in all of his cataract operations, but he tied the suture with two pairs of forceps. Tying a thread in the eye with the fingers was unpardonable as long as one could use two pairs of forceps so readily and not invite infection.

CLARENCE LOEB,
Corresponding Secretary.

KNOX, HENRY AND WARREN COUNTIES

The Fourth Annual Fall Meeting of Knox, Henry and Warren County Medical Societies was held in the Elks Club at Galesburg, Illinois, on Thursday, October 16th.

A number of the medical men spent a part of the morning on the golf course of the Country Club. An informal luncheon was held at the Elks Club at 12:30 P. M. After luncheon Dr. Joseph Mayo Tilden, President of Lombard College, addressed the societies on the subject of "Where Shall I Park My Car?" Following Dr. Tilden's address Dr. Isaac A. Abt of Chicago gave a paper with lantern slide demonstration on the subject, "Asthenic Children". The next paper

was "Paroxysmal Tachycardia in Relation to Migraine" by Dr. Wm. A. Thomas of Chicago. The last paper of the afternoon was given by Dr. Verne C. Hunt of the Mayo Clinic, Rochester, Minn. His subject was "Surgery of the Lower Urinary Tract" with lantern slide demonstration. After Dr. Hunt's paper Dr. Wm. D. Chapman, Silvis, Ill., Councilman of the Fourth District of Illinois, spoke of the work of the Educational Committee of the State Medical Society.

The attendance at the meeting was good and many physicians of the Tri-County Organization and physicians from neighboring counties were present.

Respectfully,

LOUIS N. TATE, Sec'y.

Marriages

JOSEPH L. BETTAG to Miss Isabella Anderson, both of Chicago, September 13.

LODISLAV V. CAPEK, Oak Park, Ill., to Miss Dora Elizabeth Woodburn of Chicago, September 6.

RICHARD COTTER GAMBLE, Chicago, to Miss Vera Theresa Fusselman of Livingston, Mont., September 24.

OSCAR SIDNEY LENIT, Chicago, to Miss Myrta L. Childers of Darlington, Wis., August 14.

JUSTIN C. WILLIAMS to Miss Emily Margaret Hartmann, both of Chicago, September 18.

CLAUDE CROSSLAND WOOD, Medora, Ill., to Miss Inez Fern Carr of Chicago, August 27.

Personals

Dr. Harry Jackson has been appointed assistant professor of surgery at Northwestern University Medical School, Chicago.

Dr. Herman N. Bundesen, commissioner of health, addressed the Nurses' Alumni Association of the Chicago Postgraduate Medical College and Hospital at the Morrison Hotel, October 13.

Dr. Arthur Dean Bevan, chairman of the Council of Medical Education and Hospitals, American Medical Association, gave an address at the laying of the cornerstones of the Todd Memorial Clinic and the Cancer Institute at the University of Minnesota, Minneapolis, October 1.

Dr. John L. Porter, Chicago, conducted an orthopedic clinic at Blessing Hospital, Quincy, October 13. A dinner was given in his honor at noon and in the evening Dr. Porter read a paper before the Adams County Medical Society at the

Chamber of Commerce Building, on "The Differential Diagnosis of Spinal Diseases."

The University of Chicago has set aside a tract of 9 acres, the two blocks west of Ellis avenue facing the Midway, to be devoted wholly to the new medical school. The buildings now on this tract will be removed in time, and the university will immediately spend \$4,000,000 for hospitals, laboratories and teaching quarters, and eventually not less than \$3,000,000 more. To endow the work to be housed in these buildings will call for \$5,000,000 in the near future.

Dr. Benjamin H. Breakstone has resigned as Professor and Head of the Department of Surgery at the Chicago Medical School.

Dr. C. D. Center has been elected President of the City Planning Commission of Quincy. Dr. Center spoke at the Webster School on National Defense Test Day and also was one of the officials who reviewed the parade on that day.

Drs. Harold Swanberg, Walter Stevenson and Ralph McReynolds have been appointed on the Quincy Community Chest Committee.

Dr. Harry Jackson was appointed Assistant Professor of Surgery at a recent meeting of the Board of Trustees of Northwestern University.

Dr. Ralph H. Kuhns, a member of the Illinois Medical Society, formerly on the Resident Staff of the Michael Reese Hospital, Chicago, and on the faculty of Rush Medical College, Chicago, has been appointed to the faculty of the University of California Medical School, Department of Pediatrics, and to be Adjunct Pediatricist to the Mount Zion Hospital, San Francisco.

News Notes

—St. Ann's Hospital is planning a \$250,000 addition.

—St. Elizabeth's Hospital will soon start the construction of a \$225,000 nurses' home.

—The Augustana Home for the Aged, Seventy-Sixth and Stony Island Avenue, will soon begin the construction of a \$150,000 building.

—Plans are being drawn for a new \$500,000 nurses' home for Wesley Memorial Hospital, 2449 South Dearborn Street.

—An anonymous donor has given funds for the maintenance of a research fellowship in pre-

ventive medicine at the University of Chicago for two years.

—The superintendent of the Chicago Tuberculosis Institute states that the institute now maintains seventeen health centers and twenty-three public health nurses which are financed by the sale of Christmas seals.

—The city council of DeKalb has enacted an ordinance which prohibits traffic in intoxicating liquor for medicinal purposes, except when furnished directly by a physician to a patient in his care. No prescription for intoxicating liquor may be filed in that city unless, when compounded, the mixture shall be such as not to produce intoxication. The council of DeKalb has called on the federal and state authorities to revoke outstanding federal and state permits, and to discontinue the issue of further permits, authorizing the furnishing, possession and use of intoxicating liquors. The council of DeKalb also requests the federal and state authorities to discontinue the issue of prescription blanks for the prescribing of intoxicating liquors, contrary to the provisions of this ordinance. DeKalb physicians are protesting vigorously. They have engaged counsel, and appealed to the state association for support.

—At the request of Dr. Harold B. Wood, health director of the schools of Bloomington, the attorney general of Illinois handed down an opinion concerning the authority of health officers to exclude children from schools. He stated, it is reported, that the supreme court has frequently held that boards of health or school boards or city councils may exclude pupils temporarily from the public schools when it is necessary to prevent the spread of dangerously infectious or contagious diseases, and that a health officer may temporarily exclude a pupil from the school who refuses to submit to examination, providing he has reasonable grounds for believing that the pupil is affected with a contagious disease. Such action, however, should not be taken on mere suspicion. The attorney general said also that the authority of the city health officer to examine children for contagious disease depends on the provisions of the city health ordinance under which he may undertake to act while the school board may have independent authority under the general school law or a special charter. As a rule, the authority of such officials is concurrent and neither is paramount to the other.

—The West End Hospital has severed its connection with the Chicago Medical School.

—The annual meeting of the Illinois Society for Mental Hygiene was held, October 17, at the Chicago Woman's Club, Fine Arts Building, Michigan avenue, Chicago.

—At the first regular meeting of the Chicago Pathological Society in the John Crerar Library, October 13, under the presidency of Dr. William F. Petersen, Dr. Alexander A. Maximow gave an address on "The Development of the Mammary Gland in Vitro," and Drs. R. H. Jaffe and Samuel A. Levinson on "The Effect of Hypercholesterinaemia on Experimental Tuberculosis of Rabbits."

—The fiftieth annual meeting of the Illinois Tuberculosis Association was held at Decatur, October 27-28, taking the place of the regular fall clinical meeting of the Macon County Medical Society. The Decatur Medical Society cooperated in the preparation of the program and in making local arrangements for the session. Among others, Dr. Mazyck P. Ravenel, department of preventive medicine, University of Missouri School of Medicine, addressed the meeting. Dr. H. Kennon Dunham, University of Cincinnati College of Medicine, held a tuberculosis clinic, and the Macon County Medical Society a surgical clinic at the Decatur and Macon County Hospital at the annual banquet and reception of the state tuberculosis society, held at the Orlando Hotel, October 27, Dr. Lewis C. Taylor, president of the Illinois State Medical Society was toastmaster.

—Armour and Company announce the addition of Parathyroid and Calcium Lactate Tablets. Each tablet contains 1/20 grain of pure Parathyroids and 2 1/2 grains Calcium Lactate U. S. P. These tablets are packed in bottles of 100 and they are obtained from drug trade and dealers in physicians' supplies everywhere.

Scholarships on the Oliver-Rea Foundation for graduate study in Medicine are available at the New York Post-Graduate Medical School and Hospital. Inquiries should be addressed to the Dean, 301 East 20th Street, New York City.

The Chicago Council of Medical Women will meet throughout the year at the American College of Surgeons, 40 East Erie Street, on the fourth Tuesday of each month, from October to June, at 8 p. m. The theme of study throughout the year will be Hemorrhage as related to the

various branches of medicine and surgery. The subject for special study for October will be "The Chemistry and Physiology of the Blood as related to Hemorrhage."

Deaths

JOSEPH R. BAKER, Pittsburgh, Ill. (licensed, Illinois, 1878); formerly mayor of Pittsburg and for many years county coroner; aged 74; died, September 15, at Marion.

ELIJAH WARREN BOYLES, Flora, Ill.; Rush Medical College, Chicago, 1862; Civil War veteran; aged 88; died June 4, of pulmonary edema and senility.

GEORGE S. CALVERT, Chicago; Northwestern Medical College, St. Joseph, Mo., 1885; aged 73; died, October 1, of bronchitis.

WILLIAM HENRY FIELDS, Cairo, Ill.; Howard University School of Medicine, Washington, D. C., 1890; member of the Illinois State Medical Society; aged 58; died, September 29, of uremia.

CYRUS T. FOSTER, Rock Island, Ill.; Keokuk (Iowa) Medical College, 1897; member of the Illinois State Medical Society; formerly county and city physician; aged 53; on the staff of St. Anthony's Hospital, where he died, October 9, of wounds received when shot by bandits.

JAMES I. HALE, Anna, Ill.; Chicago Medical College, 1874; proprietor of the Hale Sanatorium, where he died, October 3, aged 80, of angina pectoris.

ARTHUR ELMER KRAMER, Chicago; St. Louis (Mo.) University of School of Medicine, 1921; aged 31; died, September 17, at St. Luke's Hospital, following an operation for a tumor of the brain.

ORVILLE WINTHROP McMICHAEL, Chicago; Hahnemann Medical College and Hospital, Chicago, 1890; a member of the staff of the Columbus Hospital, where he died, October 2, aged 57, following amputation of his leg for tuberculosis of the bone.

CHARLES M. NOBLE, Bloomington, Ill.; Jefferson Medical College of Philadelphia, 1876; president of the Fairview Sanatorium, Normal; aged 73; died, September 16.

WILLIAM PRESCOTT, Dallas City, Ill.; College of Physicians and Surgeons, Keokuk, Iowa, 1878; Civil War veteran; aged 85; died, September 23, of senility.

JOHN YOUNG SHAMEL, Gibson City, Ill.; University of Pennsylvania School of Medicine, Philadelphia, 1894; formerly president of the board of education; aged 53; died, September 30, as the result of a fall from the third floor of the Illinois Central Hospital, Chicago.

WILLIAM O. SMITH, Crossville, Ill.; Eclectic Medical Institute, Cincinnati, 1878; aged 74; died, August 29, of chronic nephritis.

GEORGE WASHINGTON STEELY, Louisville, Ill.; St. Louis (Mo.) College of Physicians and Surgeons, 1899; served in the M. C., U. S. Army, with the rank of captain, during the World War; aged 49; died, September 9, at the Olney Sanitarium, Olney, of peritonitis, following an appendectomy.

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Editorial

THE CHANGING NUMERICAL RELATIONS OF THE VARIOUS PROFESSIONS

In the ten year period from 1910 to 1920 the number of dentists in the United States increased 40 per cent; in the same period the number of trained nurses increased over 81 per cent and the number of healers of the various cults increased 116 per cent. In the same period the number of physicians and surgeons in the United States showed a decrease of approximately 8 per cent. Actually there were 1,125 fewer doctors in 1920 than there were in 1910 and this shortage was found in spite of the fact that for the first time osteopaths are now given full rank in the census bureau returns. Today we hear on all sides the cry for a return to the old family doctor. The figures just cited help to explain the continual reports from rural districts and the smaller towns that they are unable to get medical service and tends to confirm the oft-repeated statement that our present day medical colleges in their efforts to outstrip each other in raising the standards of medical education, have gone too far and not only are sending out impractically equipped doctors men who are too hightoned to care for the ordinary ills of the human family and at the same time have made the medical and surgical education too difficult to secure.

Under present day recompense for professional for skilled and unskilled labor there is little encouragement for young men to go into the medical and other professions. Today plasterers and plumbers are receiving from \$15.00 to \$25.00 per day as compared with the remuneration from medical practice the outlook for the former is discouraging. There is nothing in the financial outlook for medical men that will encourage a boy or girl to spend an extra ten years with an additional outlay of \$25,000 or \$30,000 of already earned money in fitting themselves to practice medicine.

In the corresponding decade 1910 to 1920 the number of clergymen increased 7.8 per cent—about half as fast as the population in general. Lawyers showed a still slower growth 6.8 per cent. The number of mining engineers showed a decline of 3.4 per cent, in contrast to the latter civil engineers increased 24.3 per cent; electrical engineers 73.2 per cent; mechanical engineers increased 159.7 per cent. The figures cited disprove the oft-repeated statement that boys are deserting the manual trades for professions. There will have to be a readjustment of compensation returns in order to induce young men to enter the medical or other professions.

THE WHOLE TIME PROFESSOR OF MEDICINE IS UNSATISFACTORY

Protest against the whole time professor of medicine has become an acute issue. The world over the subject is receiving earnest consideration and thorough dissection.

An instance is found in an article printed recently in a leading British periodical.

In the *British Medical Journal*, issue May 10, 1924, Professor Wenckebach is quoted in an editorial as having said "In America the call is everywhere 'back to the bedside.'"

According to this statement, the situation is what the professor opines is right, and that there is only imaginary danger that the practical education of medical students will suffer through the emphasis now placed upon the scientific side. The professor, however, takes issue with those physicians, who, arguing that medicine is an exact science declare that "When we have obtained a complete knowledge of disease and of our methods of treatment we shall be able to treat our patients with absolute certainty."

As long as men are men, and human nature and human bodies what they are, medicine as an exact science is an Utopian dream.

Medicine being a science of man, for man, and by man, must be learned from man through a study of man to a large though varying degree. The evil that holds modern medical education in its grip is too much theory and not enough practice; too much talk about the bedside and not enough sitting by it.

Unless a man knows something about the patient who has the disease, it is not going to benefit him to know everything about the disease. He is working with the handicap of know-

ing all about one of the elements with which he is dealing and nothing about the other. Nature has not yet adopted union laws and union hours, nor union standardization, and state medicine will have to travel farther and faster than it has been doing to get nature into this set standard.

In some places, though the clinical teacher has a permitted amount of private practice and has private wards allotted to him for paying patients whose fees go into the coffers of the medical school or hospital; there are others where an "office" in the hospital, being put at the disposal of the clinician allows him to receive private patients and to have assistance in his treatment of them. Even though the fees go to the hospital he is relieved from all outlay for his private practice. In other places consulting fees when taken outside go to the hospital or school. Even though these provisions are designed to insure the clinician sufficient development on the practical side they are subject to the charge of being both illogical and not fitting the case.

Any sort of private practice breaks the whole time principle of a professor. It is not changed by not having the clinician receive a fee. Professor Wenckebach remarks that "This arrangement is unnatural—it is opposed to the natural desire of a man that the fruit of his labor shall be for himself and his family. Moreover there are some who consider that to take remuneration for treatment is bad for the hospital and school. I am told by one upon whose statement I can rely and one who has been a whole-time professor all his life, that in certain schools the clinicians are chosen on commercial grounds and that they are expected to assist in the maintenance of their departments by means of extra work; that there is frequently an eye for rich patients and that such physicians are sought for as are influential or who had married rich wives. This reproach is not my own but was communicated to me from a distinguished source; moreover similar views are to be found in the literature. If a prime supporter of the whole-time system holds these opinions, the system does not appear to be as deserving of imitation as many, including myself, were inclined to believe."

Now private practice affords in many respects experience that cannot be obtained in a hospital. Almost daily the practitioner comes in contact with symptoms, and with diseases, that are rarely ever seen in a hospital. It was not mere chance

that it fell to the lot of a practitioner to revise the entire subject of cardiac arrhythmia. The author states that eighty per cent of his experience in his own subject was derived from private practice. Had he remained in general practice he would never have had the opportunity for sufficient research in his subject. If he had been a whole-time professor he would have lost the greater part of his experience.

William Osler came nearer the ideal physician and academic teacher than did any of his contemporaries. One of Osler's arguments against the whole-time professor was that the regular intercourse between the clinician and the practitioner was of great value to both. The professor thus learns the need of the practitioner, where the extension of his knowledge is concerned, and by being in touch with practice, *becomes a better teacher of future practitioners.*

While the practitioner on his side learns to take new points of view, and became acquainted with improved methods of treatment.

An epitome of the situation according to Wenckebach may be said to be

- (1) Much may be said to lie in favor of the whole-time principle as
 - (a) it has a great attraction for teachers and research workers for
 - (1) it enables them to devote themselves to their work and
 - (2) avoid the troubles and interruptions of the world and society.
- (2) More may be said against the whole-time principle as
 - (a) it was mainly designed for the benefit of the clinical teacher but it
 - (1) removes him from the bedside, and
 - (2) works this disadvantage upon the future practitioner whom he has to teach, and
 - (3) hinders the full development of the clinical teacher in many instances.
 - (b) it has too many disadvantages for the generality and
 - (1) those who are perhaps the most suited for the task are precluded from taking an active part in problems of general interest.
 - (c) it requires to be effective the impossibility of a whole-time scientific appointment.

Reviewing all saliences we conclude with Wenckebach that it is difficult to understand from the purely educational standpoint why a system of practicing clinicians should not be retained.

DEFINITION OF STATE MEDICINE

So many requests have come to us from officers of the County Medical Societies asking for a definition of State Medicine that we publish the resolution passed by the House of Delegates of the American Medical Association at the 1922 meeting. The following is taken from the A. M. A. Journal, 1922 LXXVIII No. 22, page 1715.

"The American Medical Association hereby declares its opposition to all forms of 'State Medicine,' because of the ultimate harm that would come thereby to the public weal through such form of medical practice.

"'State Medicine' is hereby defined for the purpose of this resolution to any form of medical treatment, provided, conducted, controlled or subsidized by the federal or any state government, or municipality, excepting such service as is provided by the Army, Navy or Public Health Service, and that which is necessary for the control of communicable diseases, the treatment of mental diseases, the treatment of the indigent sick, and such other service as may be approved by and administered under the direction of or by a local county medical society, and are disapproved by the state medical society of which it is a component part."

GOVERNOR OF MARYLAND OPPOSED TO STATE MEDICINE

BACK TO STATE RIGHTS

A call for release from federal interference in local affairs and for relief from federal taxes that amount to five times those that the states collect. Physicians who care to interest themselves in the ever broadening field of governmental interference in private business, and who are opposed to state medicine as they are opposed to governmental operation of other businesses are invited to read an article under the above title by Governor Ritchie of Maryland, in the March 1923 number of *World's Work*. Governor Ritchie shows that the enormous federal taxes we now pay are only in their infancy if federal subsidies

to states for this or that purpose are continued. Governor Ritchie speaking recently before the Buffalo convention of the National League of Women Voters, assailed with his customary commendable force and candor some of the popular political fads of the day. Governor Ritchie even struck vigorous blows as some of the measures are policies which officers and directors of the National League of Women Voters are disposed to regard with high and uncritical favor.

Among other things Governor Ritchie warned the women against assuming that Federal Aid necessarily involved enhanced efficiency or higher standards on the part of the State, or that such aid really gave to the tax payers something they could not otherwise obtain. "Over centralization," Governor Ritchie said, "means that the Federal Government is taking away from the States the right to administer things which they can administer far better themselves." "There is endless expense", he asserted, "in maintaining large bureaus in Washington to administer Federal Aid funds." The Governor should have added that as a rule those bureaus are slow, unprogressive, clumsy and erratic and frequently bolshevistic. The aid they give instead of energizing the states, is likely to discourage or even paralyze them.

Money granted to the States by the Federal Government is taken from the tax payers with one hand and returned to them through bureaucratic channels with the other. This procedure is always accompanied by bureaucratic dictation. State legislators are frequently tempted by the bait of Federal Aid, but there is no reason why the taxpayers who have to foot all the government bills should be hoodwinked by generous offers made at their own expense. The taxpayer on the other hand can save money by a policy of intelligent state self help and initiative in every proper sphere.

To one who has fought the menaces of state subsidies over centralization and other kindred menaces so long and energetically as has the editor it is refreshing to note that the organized women of the United States are beginning to see the light and are setting an admirable example to hosts of men and are seeking enlightenment on vital national, state and local issues.

Legislation of the type condemned by Governor Ritchie will in all likelihood be presented at the forthcoming session of the Illinois Legisla-

ture. Every physician should be alert to the danger of this sort of legislation and should work consistently to prevent its enactment into law.

SENATOR BORAH CONDEMNS BUREAUCRACY AND PATERNALISM

IF WE CONTINUE AT THE PRESENT RIOTOUS RATE WE WILL FIND OURSELVES UNDER THE SURVEILLANCE OF A BUREAU

"WE WILL STILL HAVE A REPUBLIC IN NAME BUT A BUREAUCRACY IN FACT—THE MOST WASTEFUL, THE MOST EXTRAVAGANT, THE MOST DEMORALIZING AND DEADLY FORM OF GOVERNMENT WHICH GOD HAS EVER PERMITTED TO TORTURE THE HUMAN FAMILY."

Senator William E. Borah in the *Nation's Business* says: "The indebtedness of the United States at the close of the past session of Congress was thirty-six billion dollars." We apparently imagine that a fairy Godmother will provide, but Senator Borah sets forth figures which seem to imply that soldier's bonus will have to be raised by means of taxation. We quote him as follows:

In 1894 our taxation was \$12.50 per capita. In 1922 it was \$64.63 per capita.

In 1913 our tax bill, State and Federal, was \$2,194,000,000. Eight years thereafter, four years after the close of the war, it was \$7,061,000,000. It is about that sum now.

In 1913 we were taking 6.4 per cent of our national income in the way of taxes. In 1922 we were taking 12.1 per cent.

The farmer's tax bill in 1913 was \$624,000,000. In 1922, eight years thereafter, it was \$1,436,000,000.

In fifteen of the great Northwestern States, between 1920 and 1923, out of a total of 2,289,000 owners and tenant farmers more than 108,000 lost their farms through foreclosure or tax sale; over 122,000 lost their property without legal proceedings; and 373,000 retained their property only through the leniency of creditors.

Of course, I realize that other things than taxes enter into this condition of affairs, but when we go into these great agricultural communities and see page after page of the county papers covered with items of tax sales, we are advised as to the predominating effect of these increased taxes toward bankrupting these agriculturists.

Thirty years from now, if we continue at the present riotous rate, taxes will be a hundred dollars per capita. Senator Borah concludes, and forty per cent of the national income will be demanded for public expenses. There will be an officer for every ten persons in the republic and in every activity we will find ourselves under the surveillance of a bureau. "We will still

have a republic in name but a bureaucracy in fact—the most wasteful, the most extravagant, the most demoralizing and deadly form of government which God has ever permitted to torture the human family.”

THE VETERANS BUREAU MUST HAVE A COMPETENT MEDICAL PERSONNEL

The American Legion at its convention at St. Paul in September adopted the following resolution:

“The convention does not believe that the Veterans Bureau has ever reached the proper stage of efficiency; this must come about at once. There must be efficiency, service and kindness to the men. Regional offices for the reviewing of claims by wounded men must be established. There must be competent medical personnel. The Bureau must be free from bureaucracy. There must be a medical corps assigned to the bureau, just as there is to the army and navy. There must be a speedier adjustment of claims.

LIST OF PHYSICIANS IN ILLINOIS WHO SERVED DURING WORLD WAR IN UNITED STATES NAVY

Anderson, August.....	Illinois
Bradley, Robert G.....	Illinois
Brooks, Overton.....	Illinois
Childs, Colvin B.....	Illinois
Cope, Paul F.....	Illinois
Costello, Charles Anthony.....	Illinois
Dysart, Benjamin Q.....	Illinois
Fetherston, James E.....	Illinois
Flickwir, Arthur, H.....	Illinois
Herman, George G.....	Illinois
Hillis, David Sweeney.....	Illinois
Hughes, Herbert C.....	Illinois
Koptik, George.....	Illinois
Langan, Arthur J.....	Illinois
Loar, Ralph R.....	Illinois
Orcutt, Arthur H.....	Illinois
Richardson, William W.....	Illinois
Thompson, Willard A.....	Illinois
Walker, Sydney, Jr.....	Illinois
Winnard, Wellington Ralston.....	Illinois
Wood, George W.....	Illinois
Yeck, Charles W.....	Illinois

Kindly make corrections in the above list and mail direct to Dr. P. J. H. Farrell, 25 East Washington St., Chicago.

A NEW HOSPITAL FOR CHICAGO UNDER UNIQUE SYSTEM OF OPERATION—PHYSICIANS' AND SURGEONS' INSTITUTION OF CHICAGO

Rapid, unimpeded progress of American medicine and surgery appears almost inspired. Already the whole civilized world regards the medical profession in America as leader.

Contrasted with conditions in other countries, a most notable and progressive line of advance lies in the genuine spirit of fraternity existing among members of the medical profession in America. This is remarked especially in

the amiable and cordial relations among medical men and women, and specialists in the varying branches as well as in the tendency to co-operate; the open forums or scientific discussions at frequent meetings; numerous efficient, scientific laboratories and the many scientific groups of medical men and women, resolved as units for economic, social and research tasks.

Among these group movements one of the most recent and most fecund for the general welfare is the assembling of “The Physicians and Surgeons Institution of Chicago.”

This institution will be a boon to many men in many ways. The public, the practitioner, scientific experts, specialists, and incidentally many hospitals will find this institution a source of benefit. In conjunction with a modern hotel of excellent appointments, this institution will provide for accurate and complete diagnosis through the finest obtainable equipment and physical plant. The working organization includes a staff of full time men, and a consulting staff of specialists of recognized ability.

A long felt want will be filled by this new project. As it is now, a large number of first class hospitals with exceptional laboratory facilities to expedite a diagnosis, are available only to that small group of men on the staff or to their personal friends. Any other practitioner wishing to avail himself of the hospital or its laboratory, as a rule, must either turn his case over to one of the staff members or consent to work in a capacity subordinate to some of them.

There are any number of excellent hospitals affording splendid accommodations for patients, but only a few hospitals combine scientific care for the patient and modern living arrangements for friends or relatives.

Where such accommodations for friends or relatives are at all available, usually they are far too freely in contact with the sights and sounds of an ordinary hospital, often unavoidably far from pleasant. This is bad for the hospital, bad for the patients and bad for the relative and the public.

Of a necessity a hospital to be a hospital must have stringent rules with the care of the sick the uppermost idea and intent. The dual nature of hotel and hospital are antagonistic inherently, unless at the beginning the institution was basically constructed with this end in view. It is well known that many patients, especially the

well-to-do, object to hospital housing for observation and examination only.

Making all due allowance for the efficient experts in clinical and laboratory diagnosis connected with many good hospitals, it must still be admitted that in the greater number of hospitals to which the great bulk of practitioners have access, such institutions cannot afford to maintain an efficient corps of laboratory experts or of consultants versed in every line and every diversified specialty. As a consequence the smaller hospitals, the general practitioner, and most of all the general public, are handicapped in capable practice through suffering this lack of those facilities possible only to a limited number of the profession, and to a very few hospitals of the wealthiest endowment.

Recognition of this situation by a group of responsibility-facing men has brought about the projected Physicians and Surgeons Institution of Chicago. To make this a genuinely diagnostic institution of blanket benefit to the public primarily and for the public welfare, and to the general practitioner, about 200 well-known men, successful in their respective branches of the profession, have formed into a working unit. These men are all general practitioners with large practices, or purposeful specialists, intent upon correct diagnosis first, and proper and effective treatment later, of all their patients.

This institution is not going to treat any one. It will be merely as perfect as possible a piece of mechanism available for any physician, irrespective of location, to use in achieving the best possible results for his patients, without having the patient leave the control of his own physician. This institution will be the public servant of every qualified, honest doctor as well as of the public, and will be pledged to the most efficient assistance in the most economic manner.

Larger hospitals will be benefited from this new organization through referred cases. Smaller hospitals will gain appreciably because, lacking an expert laboratory staff of their own, that of this institution, will be in readiness to aid diagnosis.

Physicians at any point in the United States will find help here. The scope of this institution will be widespread as any doctor anywhere may refer for diagnosis any of his difficult cases secure in the knowledge that the cases will not be retained but, the case and the diagnosis will be

returned to this doctor, and the treatment he sees fit to give will be a matter between himself and his professional conscience.

DOCTORS AND THE CHILD LABOR AMENDMENT

The medical profession are credited with being the greatest single factor in helping to mould public opinion. In the Child Labor Amendment law recently passed by Congress and now waiting ratification in the State Legislatures we have the greatest menace for the future welfare of boys and girls that has ever been brought to the attention of the American people. The amendment has been well christened "The Child Loafer Amendment." The passage of the bill by 36 states would immediately result in the passage of a bill authorizing the Children's Bureau in Washington to issue some regulations which would make it illegal for boys and girls reared on the farm or elsewhere to be anything but first class loafers.

It is a trite saying that an idle mind is the devil's workshop. That a child's idleness gives him over to the devil. It is claimed now that the great percentage of crime in this country is committed by persons between the ages of 17 and 22 years; under a system of compulsory idleness of youths under 18 years, boys having no responsibilities, free to hang around pool rooms, unlimited time for joy riding and other convenient methods for indulgence, legally restrained for earning money in a legitimate way will resort to illegal means of getting it and out of their system of compulsory idleness will come a marked increase in crime both major and minor.

From first to last the scheme is red, bolshevistic and socialistic and would prove the worst menace that could possibly be inflicted upon the youth of the country. As a profession let us individually and collectively so far as we can, try and induce the State to shoulder the responsibilities and burdens that are constitutionally its own to the end that our growing civilization emerge from the people themselves rather than be thrust upon them by a bureaucratic centralized government.

We publish below comment by several newspapers and magazines which we feel covers the worst phases of the proposed law.

SHALL THE AMERICAN CHILD BE FEDERALIZED?

NEW AMENDMENT TAKES CONTROL OF CHILD, NOT OF HIS
CONDITIONS: AN ANALYSIS; SOME DANGERS OF
BUREAUCRATIC METHODS IN DEALING WITH
JUVENILE LABOR

IREDELL MEARES
ATTORNEY-AT-LAW
WASHINGTON, D. C.

In this article the writer discloses pertinent facts concerning the latest attempt to tamper with the Constitution.

The Washington (D. C.) *Star* publishes a synopsis of a textbook issued by the advocates of the Child Labor Amendment to the Constitution of the United States "definitely contradicting statements" of its opponents, it is claimed, and in defending the amendment the textbook says:

1. The proposed amendment is an *enabling act*, not a statute.

No one claims it to be a statute. It is worse. Statutes can be repealed. Not so easily a constitutional law. It is a grant of power. But who ever heard of a constitutional power being an enabling act? Every intelligent person knows the Constitution, and the laws made in pursuance thereof, is the supreme law of the land. It supersedes and overrides all state laws. Even by the second section of this amendment it is provided that the state laws shall remain unimpaired, which would be true, whether stated or not, except when necessary to give effect to this amendment and statutes made pursuant to it by Congress. To say it is an enabling act is manifestly a misleading statement made for effect.

REGULATES LABOR, NOT EMPLOYER

2. This textbook claims it grants power to Congress to make laws against the exploitation of childhood.

It does not. Congress under it *can regulate the child* in his labor *but not the employer* in his employment, except negatively in prohibiting the child by directing how, when and where he may work, and neither "child" nor "employment" is mentioned in the proposed amendment.

3. To fix a minimum standard for the employment of children is another claim.

Not at all, except to say to the child that he may not under a certain age engage in work, but, if he does so engage, no act under this grant could attach a penalty to the employer who might employ such child under the prescribed age. It is the *child's labor*, not the person employing it, which it may limit, regulate and prohibit. In fact, the proponents of the bill, when considered in committee, objected and had discarded from the proposed amendment the words—*child* or *employment*.

4. To prevent employers sending work across state lines for children to do, or to employ children who migrate from one state to another and "to enable Congress to protect high standard industries with good child labor laws to protect their children against low

standard industries and backward states"; but this it could do only by prohibition of the labor of minors under eighteen, not by imposing fines upon low-standard industries so as to compel them to raise their standards. There is no grant of power to regulate industries or to prevent the shipment of goods from state to state for any purpose. It might prohibit any person under the age of eighteen from labor on goods so shipped, after such goods had reached the state of the person's labor. No grant of power is given to regulate such shipments, if for such purpose ever made, or to impose penalties upon shipper or transportation company.

CONFIDENCE, THE PARENT OF DESPOTISM

5. It is not, says this textbook of errors, a regulatory measure and does not itself prohibit or regulate anything.

No, but it grants the power to Congress, and, if granted, Congress may enact laws to execute the power. Every advocate in committee of this proposed amendment urged it so as to enable Congress to legislate and knowing such legislation would supersede all state laws, now existing or hereafter made, if in conflict with any act of Congress upon the subject. Of course, if adopted, Congress might not pass any law on the subject and the power conferred might remain dormant, but Congress will probably do so, if given the power, and that is the purpose of the amendment.

It is said we can have confidence in Congress and rely on its exercising the power wisely; but let us recall and act upon the counsel of Thomas Jefferson who said "confidence is everywhere the parent of despotism—free government is founded in jealousy; not in confidence—it is jealousy and not confidence which prescribes limited constitutions."

Will the mothers of this land vote to confer upon Congress the power to limit, regulate and prohibit the labor of their children under eighteen years of age? Consider the question in terms of your own children, Mothers of America, not in terms of other people's children, and then act and vote as mother love, mother conscience, dictates! If this power is granted, Congress will exercise it, and then we shall have regulations prepared and prescribed by high-salaried philanthropists, at Washington, directing all persons under eighteen when to labor, how to labor and where to labor, even not to labor, whether that labor be for gain, pleasure or in unrequited service to parents!

6. It is not contemplated, this textbook says, to regulate the labor of domestics, like girls who may go out to work in homes or who work at home with their mothers, without compensation but in co-operation with the family.

If not, why did not the proposed amendment limit the power of Congress to regulate the exploitation by employers and conditions of labor in factory, mill, mine, or other places where children are employed, and except those engaged in domestic service? *The amendment includes all occupations of every kind, whether for or without compensation, beneficial or deleterious either to health or morals.*

7. It exempts no occupation this textbook admits—

it could not do otherwise—it would explain, because the place to make exemptions is in the law which Congress will enact.

DESTROY'S THE POWER OF STATES

When, however, the Senate rejects a motion, as it did, to exempt "those engaged in outdoor employment" and another to limit the power of those "who are engaged in occupations other than agriculture or horticulture," may it not be said that it is contemplated Congress will enact, if the power is given, a law to limit, regulate or prohibit the labor of all persons under eighteen who are engaged or want to engage in such pursuits?

8. "It takes away no power the states do not now have" is the inexcusable misstatement of this textbook.

If not, and it is not its purpose, what is the reason for the amendment? The moment Congress enacts a statute "to limit, regulate or prohibit the labor of all persons under eighteen years of age" all state laws in conflict must give way and the Federal statute becomes the supreme law of the land. At present the states have exclusive power to legislate, within reasonable limits, as to the welfare of their children, each within its own borders. Congress has no such power.

The amendment proposes that the states surrender this power and confer it upon Congress, and, if adopted, the states could pass no law in conflict with any act Congress might enact in pursuance of the power granted. THE POWER THUS PROPOSED TO BE GIVEN IS ONE NO STATE LEGISLATURE COULD EXERCISE OVER "ALL PERSONS UNDER EIGHTEEN" WITHOUT HAVING HAD IT EXPRESSLY GRANTED TO IT BY THE PEOPLE IN THE CONSTITUTION OF THE STATE. There is no state in the Union whose people have conferred such unrestricted power upon its legislature by constitutional grant.

It was proposed in the Senate to strike out the words, "That Congress shall have the power to limit, regulate and prohibit the labor of all persons under eighteen years of age" and, instead, to provide that "The Congress shall have the power reasonably to limit and regulate the labor of persons under eighteen years of age and to prohibit such in suits involving special hazards to health, life and limb," but the proposal was voted down.

BORN IN RUSSIA, EXPORTED TO U. S. A.

Senator Fletcher has well said that "refusal on the part of those responsible for the introduction of the proposed amendment to consent to the adoption of these amendments *clearly indicates their influence, intentions, and what may be reasonably expected in the way of legislation* should Congress be granted the power to "limit, regulate and prohibit the labor of all persons under eighteen years of age."

Senator King, of Utah, speaking in the Senate on the question, said: "If the Senator from Delaware will pardon me, every Bolshevik, every extreme Communist and Socialist in the United States is back of the measure. The Bolsheviks of Russia were familiar with the scheme that was about to be launched to amend our Constitution.

"In conversation with one of the leading Bolsheviks in the city of Moscow, one of the educators, when I was there last September and October, I was remonstrating with him about the scheme of the Bolsheviks to have the state take charge of the children: 'Why,' he said, 'you are coming to that' . . . 'A number of Socialists in the United States,' and he mentioned a number of names but I shall not mention them here, 'are back of the movement to amend your Constitution of the United States, and it will be amended, and you will transfer to the Federal Government the power which the Bolshevik is asserting now over the young people of the state.'"

We are further told in their textbook that this proposed amendment "does not prohibit the labor of children up to eighteen nor does it contemplate a Federal law containing a general prohibition up to eighteen years."

REACHING AFTER THE CHILD

This assertion is mere camouflage and a gullible public is relied on to accept it, as if the amendment does not in itself manifest its intention. If not contemplated, why did the proponents of the measure so make it read?

So it is the child, not the employer of the child, after which the proponents of this measure are reaching, and expecting, if Congress is granted the power, that by gradual legislation, here a little and there a little, effected by influencing the passage of bills, or amendments adopted in committees upon recommendation of bureaus and passed without understanding by members of House or Senate, that ultimately the Federal Government will control the persons under eighteen by limiting, regulating and prohibiting their labor.

It is my judgment, backed as this amendment has been chiefly by persons identified with Sovietism and Socialism, that it is the foundation which has been laid for subjecting the youth of this country to control by the Federal Government under the pretense of protecting child labor and providing for its welfare.

As the persons identified with this movement have been able to lead Congress to the submission of this proposed amendment, so they hope by appeal to sentiment to enlist the support of a sufficient number of states to adopt it and, if so, to influence Congress from session to session to secure the passage of legislation which will gradually enable them to accomplish their ultimate designs. As no time limitation has been placed in the act within which the states shall act, if they fail to get it adopted at this time, agitation will continue so as to induce the states, now rejecting it, to reverse their action and ultimately to secure favorable action of a sufficient number to adopt the amendment.

It is worthy of note that the President of the American Child Hygiene Association, at the hearings on the Physical Education Bill, January 12, 1921, declared that "the child is not private property to be controlled and treated at the will of the parent but public, belonging to the public, and must be brought up for the good of society," and Mrs. Florence Kelley, a recognized leader in so-called social welfare legislation, and the

chief promoter of this amendment before the Senate Committee, said, "It is unsafe to leave children to the tender mercies of the pressure of ignorant parents."

THE MILK IN THE COCOANUT

It is only necessary to review the hearings in committee and to know the records of its proponents to realize the above-quoted words reflect the views of the majority of them. It is claimed eighteen women's organizations are back of this proposed amendment. Would it not be more accurate to say eighteen self-constituted leaders?

Having a constitutional proviso "to limit, regulate and prohibit the labor of all persons under eighteen years of age," we will have a law by Congress; having the law, we will have a bureau; having a bureau, we will have welfare workers; having welfare workers, we will have rules and regulations; and the milk in the cocoanut is the creation of a lot of jobs at Washington for a self-created profession of non-productive laborers in the vineyard who call themselves social welfare workers.

Hiking around the country, bedecked with Federal badges, will be so-called experts on child labor, which will be construed to relate to all things pertaining to children if this twentieth amendment is incorporated in the Constitution of the United States. The power is there and, once given, it will be exercised, sooner or later.

From the *Dearborn Independent*, November 22, 1924.

THE AUTOCRACY OF THE PROPOSED CHILD LABOR AMENDMENT

The *Woman Patriot* in its issue of August 15, 1924, in commenting upon the amendment says:

"The Central idea of the so-called 'Child' Labor Amendment is that 48 State Legislators, and some 35,000,000 American parents have all 'failed' in adequate protection of children; that to 'protect' children full power over the labor of all persons up to 18 must be centralized in one legislative body at Washington (where less than 200 men constitute more than a majority of the ordinary quorum) who, in turn, must delegate the administration of this tremendous power to one woman—neither wife nor mother—who, according to this theory, by serving in a Washington bureau ten years and a few years at Hull House, the Chicago clearing house of radicals, pacifists and other nuts, has learned more about 'protecting children' than all the millions of mothers who bore them or the communities in which they live!

"Has any more ridiculously autocratic theory ever been suggested since we declared our independence of George III? If that monarch were alive today, he would be astonished at his own

moderation' in demanding merely power to tax his distant subjects, seeing how easily they submit to autocracy when called 'child welfare' and when the autocrat aggressively declares that one spinster knows more about children (from 'prenatal care' to 'persons under 18') than all the 7,000 legislators and 35,000,000 parents in the 48 States! But we have understated the facts. The basis of the amendment is not only the theory that one spinster and 200 Congressmen know more about protecting children than all the States and all the parents—for superior knowledge could be used in teaching the people without any amendment—but that the one spinster and 200 Congressmen shall have the power, regardless of their relative knowledge over the labor of all persons in all occupations, up to 18 years, notwithstanding any knowledge or experience possessed by any parent or any States. And yet we once declared our independence of a mere king."

THE CHILD LABOR AMENDMENT AND THE FARMER BOY

Oscar E. Bradfute, president, American Farm Bureau Federation, in the American Farm Bureau Federation News Letter, in speaking of the "Congressional Mother Amendment" says:

"State legislators so far have not been keen to provide a Congressional Mother for every American youngster. They have shown much wisdom in turning down the proposed Child-Labor Amendment to the Federal Constitution. * * * Hasty actions by the states on constitutional amendments are likely to be the source of keen regret. It is amazing to see how far the coterie of socialists of the red variety have been able to push their hobby.

"Off hand the regulation of child labor, of course, sounds good and appeals to everyone, but if such federal action is taken without duly considering this serious problem, which has had so much thought from a local standpoint in practically every state in the union and which concerning many state laws have been passed, we are likely to regret it.

"The proposed Congressional Mother Amendment to keep the farm boy from helping with the chores or the girl from aiding in light household tasks is in the same category as the Maternity Bill which occupied the time and thought of Congress for several months not long ago.

Very soon the socialists will have a federal employee attending the mother and child at birth, care for the child through the adolescence period, give it a life time job, provide a federal funeral with honor and last but not least a pension in perpetuity. Since the proposed amendment merely authorizes Congress to pass legislation concerning the hours, conditions and age of child laborers there can be no proof offered as to how Congress will be guided in the future concerning it. The sky is the limit. The proposed amendment would put a Congressional Mother (probably a spinster) in the Child Labor Bureau which would make the proverbial step-mother blush with shame.

"Though the amendment is not limited to any object, it provides that 'The Congress shall have power to limit, regulate or prohibit the labor of all persons under eighteen years of age.' The amendment is 'wide open' and gives Congress the power to step in ahead of the States and say under what conditions the million children now gainfully occupied shall be employed, or if they shall work at all, how the work shall be done and in other ways to meddle. This is in the face of the fact that without exception every State in the Union prohibits labor in the factories and mines by children under fourteen years of age and many regulate labor of children up to sixteen years, qualifying it according to the conditions which prevail within the State.

"But we have the word of some of the Federal officers themselves that the purpose of this amendment is to regulate the employment of the boys and girls on farms. No one resents the exploitation of child labor any more than the farmers themselves. By the same token nobody will resent Federal interference in the tasks which it is necessary and right for farm boys and girls to perform than their own parents.

"Of the 1,060,000 children which the census figures show are occupied in gainful work a part or all of the time, about 650,000 are reported as employed in agricultural pursuits. Of these 570,000 or about 88 per cent were living and working on farms owned by their parents. The Congressional step-mother would take the place of the real fathers and mothers of these half-million farm boys.

"Ratification of the proposed amendment would permit a woman having no experience with children located in the Children's Bureau to lay

down rules and regulations for husky young farm children making it a crime to take part in the lighter chores, aid in the harvest at times when it is impossible to get any other help, or prohibit them from becoming members of the Boys' and Girls' Clubs for fear they would strain themselves while feeding their pet animals, and in other ways 'regulate and restrict' their activities."

"Truly, the new generation on the farm, if properly trained and given sufficient amount of Red literature could be depended upon to increase the Socialist Army by many thousands, especially if they could be kept indolent during the period of their physical and mental development!

CONGRESS LOST ITS HEAD WHEN IT PASSED THE CHILD LABOR AMENDMENT

When Congress asked us to hand over the control of our family life to it, it demonstrated that the national law making at present constituted is untrustworthy. A number of spineless law-makers supposed it was popular to destroy the federal constitution and that state rights at present is a dead issue. In our estimation they are due for a rude awakening.

The Child Labor Amendment was substituted to the people of Massachusetts on a referendum at the November 4th election. The proposition was overwhelmingly rejected by the voters of Massachusetts. The "ayes" were 247,221; the "Noes" 696,119.

Massachusetts is the fourth state to reject the so-called Child Labor Amendment. The emphatic way in which the people of Massachusetts repudiated the amendment will certainly cause members of the legislatures in the various states to be very careful before they give away to the Federal Congress the rights that belong to their own constituents.

PAYING DOCTORS WITH DEER SKINS. EARLY MEDICAL HISTORY IN ILLINOIS COUNTRY

In the search for data for the History of Medical Practice in Illinois, the committee has come into possession of much information that should incite a thrill for medical ears.

We publish below two interesting items per-

taining to early medical practice in Illinois, the one item furnished us by Dr. G. C. Otrich, of Belleville, Illinois, shows how a surgeon sued to compell a defendant to pay him three hundred pounds of deerskins for the amputation of a leg. The other item furnished us by Dr. Lucius H. Zeuch portrays a doctor's harrowing experience with banditti of early Illinois and beautifully portrays the hazardous experiences of early practitioners.

PAYING THE DOCTOR WITH DEER SKINS

At a Court, December 10, 1779.

President, Francis Trottier,
Michel Beaulieu,
Antoine Girardin,
Pierre Martin,
Bte. Saucier,
Charles Gratiot.

M. Reynal, Plaintiff, vs. Charles Gratiot, Defendant.

The plaintiff shows the Court by petition that the defendant should be condemned to pay him a sum of three hundred pounds of deer skins for the amputation of the leg of Jean Racette which he performed as he had been summoned by the said gentlemen; and the said M. Gratiot has promised to pay the surgeon on condition that the named Parisien to whom the accident had happened, reimburse him what it cost therefore.

This was said in the presence of Bte. Alarie. Bte. Alarie appeared on summons and, after having made oath, proved that he was not in Cahokia when the accident happened to Jean Racette.

The defendant offered as his defence, wherefore he should not be condemned to pay this sum of three hundred pounds, that the said Racette, although the accident happened at his house, was a total stranger to him, and that in such circumstances it was his duty to send somebody to seek a surgeon to relieve an unfortunate man without being obliged to pay the costs.

Since the Court cannot unconditionally condemn M. Charles Gratiot to pay M. Reynal the sum of three hundred pounds for the amputation of the leg of Racette, it decided that it was necessary to await the arrival of the named Parisien, to whom the accident happened.

A DOCTOR HAS A HARROWING EXPERIENCE WITH THE BANDITTI OF EARLY ILLINOIS

Our own Illinois was a haven for lawless men just before its entrance into statehood in 1817. And especially was this true on the new roads that were designed to aid travel across country from one river settlement to the other. Men found that they could make better time on horseback from place to place than the slow navigation

of the streams afforded. The direct road from Vincennes to St. Louis was just opened and a band of cut-throats had under the disguise of tavern keepers intrenched themselves along this highway and lucky was the man who escaped either murder or robbery when necessity made him a traveller through this rendezvous of banditti.

A traveller, Richard Lee Mason, obtained a list of these outlaws which he designated as follows: Gatewood, Rutherford, Grinberry, Cain, Young, Postlewaite and others, and he claimed they operated for a distance of eighty miles through the dreary lonesome prairies. They murdered travellers, passed spurious notes which they manufactured and all in all were thoroughly bad men, emboldened by the freedom from the law of the organized forces of Justice.

That the pioneer doctor had to be a man of great courage is well illustrated by Dr. Hill's experience with these rogues. As one of the party consisting of Richard Lee Mason, the narrator, Dr. Hill and two strangers from Kentucky, they were well armed with guns, dirks, and ammunition. The first of the bogus chain of taverns was the House of Gatewood, and upon inquiry of his comely wife, who seemed alarmed when her husband was inquired about, they received the information that he was not home. The Robinson Crusoe-like appearance of the questioner seemed to agitate her and give her a look of dejection. A nearby bloody cravat on the end of a log would have been sufficient to scare away any tenderfoot, but these men were the product of perilous times and resolved that they would not allow anyone to get the drop upon them without a fight. Not seeing the first of the gang, they went on determined to see the balance.

ARRIVE AT THE HOUSE OF RUTHERFORD

They crossed the open prairie without any danger of ambush and arrived at dusk at the House of Rutherford. This time they were determined to forestall disappointment and to make sure that they would meet the rollicking gentry with a predilection for surgery of the neck. They resolved to put up at his house for the night, as the narrative said, "This was a piece of comedy for information which was near ending in tragedy," for they almost fell into a trap such as was the undoing of many traveller on the same highway. The travellers of the narrative were

being transported in a little carriage with two horses, and their combined baggage constituted an inviting prospect for looting.

MEET THE HOST MR. RUTHERFORD

On their arrival they were met by a man in the disguise of a Quaker, who pretended to be a hostler, but whom Mason recognized as a renegade engraver of Philadelphia. Calling for the landlord, Mrs. Rutherford informed them he was not home but offered them the hospitality of the home, which was an incommensurable log cabin. They were startled shortly afterward by a war whoop emanating from the threats of four drunken men who then entered the house, the party comprised Rutherford and his companions of evil. They eyed the baggage but ignored the travellers. One of the travellers heard voices in a small log house adjoining the building. With a lighted candle, the searchers could not find from whence the voices came but on returning for another look, discovered two tall men in the chimney whom they addressed and who followed them into the house, making six bandits in all, not a good prospect in a possible battle, all of whom had a good supply of weapons. Their appearance with sleeves rolled up, their beards long, and faces smutted gave the intrepid travellers forebodings of the intent within their minds.

Rutherford, disguised and denying his identity, consulted with his friends which made the seekers after adventure sure that much entertainment would be on the program. Hints that the trap door was too wide open and should have been screwed down, and a jocund remark about a victim's unsightly cut by one of the wielders of the knife, with other vague remarks ostensibly intended for the traveller's disquietude, and similar repartee was freely indulged in.

That their plight was not a comic opera bouffe situation was recorded by the chronicler's statement that, "our own safety now become a matter of serious consideration and our party of four held a consultation in a dark little way in the house." Another demonstration of bravado by the six bandits for the edification of the visitors was displayed when at 10 p. m. they took their six candles as targets into the area about the cabin and snuffed them out by six well calculated shots from their rifles at forty yards distance. A horn then blown three times was the signal for

the retiring of two of the bandits to return again at 12 o'clock. Their message to their companions was an insidious intimation that, "they could not be had," whatever the statement intimated, it had its sinister foreboding as to our fates, states Mason. Then the bravadoes proposed to take a drink and lie down to rest upon the floor, which they did upon their arms.

Not satisfied that some secret firing holes were not in the walls, the travellers were reluctant to lie down, but upon satisfying themselves that this was possibly not the case, they lay down with their dirks unsheathed and the guards off their pistols. Mason, cognizant of the treacherous habit of the gentry with expert ability at throat cutting, resolved to make that procedure a little more difficult if he should perchance fall asleep, by tying a silk handkerchief around his neck. It is needless to say the God of Sleep had no chance to work in that party for every stir of the snoring and coughing bad men created a desire to do the same in the intimidated party. So passed the long hours till dawn when one of the backwoods party fired a shot as a signal for rising that brought all to their feet with hands upon their guns. As a preliminary to their departure, the bandits made a display of examining their rifles and then departed in the direction the strangers were going.

The old ruse of feigning sickness for medical care failed to put the travellers off guard, for just as they were to depart, one of the brotherhood of sneakthieves asked that the doctor come in the house again with his saddle-bag of medicine for one of his comrades was very sick and needed attention. This invitation was declined by Dr. Hill with the advice that it would be better if the sufferer would intrust himself to some one he knew better. With this, the wayfarers hurried on where they met four others going also to St. Louis, that made the remainder of the journey less hazardous. Thus we see the practice of medicine had plenty of adventures in the good old days. Although this story may seem a little overdrawn to the readers of our day, yet it must be given credence in a measure for many stories of a similar character have been recorded from travellers of the period.

The above are examples of hundreds of other interesting steps in the growth of the Illinois country portraying doctors as the "trail-blazer"—telling of their work, their want, their heroism

and courage down to the present day. Everything from the earliest period of medical practice in Illinois will be set down in the history of medical practice of Illinois, now being prepared by the committee on medical history under the sponsorship of the Illinois State Medical Society.

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HURRY ON DATA FOR MEDICAL HIS- TORY OF ILLINOIS

The time is rapidly approaching when data intended for the Medical History will have to be in the hands of the committee if it is to become a part of this tribute to the medical profession of Illinois.

A salient point to be borne in mind is that if this history is to be worthy of the work it aims to commemorate, it must be constructed coherently from the medical history of every community in the state. This means that every physician should pause long enough to supply the committee with what data he or she possesses or with information where such data may be procured. Sifting chaff from grain with chopsticks is ultra-easy in comparison with winnowing out the archives of the past. Annals of those sturdy pioneers are only partially found in libraries and court houses. By far the greater portion of desirable memorabilia is apt to be locked in garret chests and faded family albums and scrap books. Will every member of the Illinois State Medical Society make it a point to see that his community is in some way informed that this work is in progress and request for the history committee the loan of documents, pictures, or other mementoes that may be of interest or assistance?

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THE INTERNATIONAL CLASSIFICA- TIONS OF DEATHS IN THE PUER- PERAL STATE SHOULD BE MODIFIED

COMPARISON OF STATISTICS UNDER PRESENT
CLASSIFICATION IS ERRONEOUS AND
MISLEADING

In Dr. Charles Mongan and others, in the October 2, 1924, issue of the *Boston Medical and Surgical Journal*, in discussing the international classification, offer the following criticisms:

Before we enter into a discussion of this proposal, it might be well to give to this conference a short explanation of the meaning of the title of our conference.

Until recently, few physicians realized the meaning of the expression "death in the puerperal state." At the expense of being charged with being boring, let me repeat the definition of death in the puerperal state. The term "puerperal" is intended to include pregnancy, parturition, and lactation. Whenever parturition or miscarriage has occurred within one month before the death of the patient, the fact should be certified, even though childbirth may not have contributed to the fatal issue. These deaths are the so-called maternal deaths to the laity. The expression maternal death is not used in scientific medical literature nor does it appear in statistics.

A few words of explanation of the International Classification of the causes of death would not in my opinion be out of place at this time.

It will readily appear to you that no progress in sanitary science could be made unless there was a method of comparison of the causes of death between different countries or parts of the same country. If we are to compare the mortality rates of one section of this country with mortality rates of another section of this country, some uniform method must be devised for compiling these records. That the method used should be reasonable, fairly accurate, and reliable must be admitted. And further the mortality rates in any country, admitting that they are made honestly and accurately, are the statistical measure of the medical service that the physicians of that country are rendering to the community. It seems to the author that this statement needs no proof. Therefore, every physician should be scrupulously accurate in filing our death certificates. He should keep in mind that in many cases he is on trial. If a death occurs in the so-called preventable diseases, the question will arise in the mind of the loyal, truly scientific physician, what happened in his particular case. So that the accurate classification does concern all who have at heart the reduction of mortality rates. The lower the mortality rates in any disease the greater the efficiency of the practitioner. There is no other way that I know in which the efficiency of the physician can be measured. There is no other way I know by which the laity can judge of the kind and nature of service the profession gives to human kind.

Nearly every civilized country in the world has adopted the international classification as the rule for calculating mortality rates. The same form of death certificate is used in the United States as is used in England and France and in most continental countries as well as in Canada and South and Central America.

So that with a certain exactitude we can compare mortality rates in one country with those of another. From the earliest times, attempts have been made to agree on a scientific classification of disease, for a proper classification was thought necessary for the scientific treatment of disease. It was not until 1911

that a committee on the part of the A. M. A. stressed the importance of adopting the international classification in coöperation with the profession in other countries. The A. M. A. is now represented by a committee to coöperate with the committees in other countries and this international committee meets once in 10 years for revision of the classification.

Although we are now working under an international classification the method of using the classification varies somewhat in different countries and the results that are obtained vary, and the variance when compared with results classified in U. S. puts the U. S. statistics in a position which is not warranted.

The author believes that for the most part, the classification is an excellent one. The method of calculating mortality rates in obstetrics is as follows:

All deaths in the puerperal state are compared to the number of live births, including still births, so that if we have a number of deaths such as for instance following abortions, these deaths are compared with the number of live births. It is not possible to compare them in any other way. Deaths following abortion should be compared to the number of abortions that occur but there is no way of ascertaining the number of abortions that occur in any given country.

In England, and that means England and Wales, deaths in the puerperal state are divided so that the English classification is somewhat as follows: Deaths that occur in the puerperal state and a sub-division, called, deaths that are associated with pregnancy such as pneumonia, influenza, tuberculosis, and the so-called Brights disease. In the United States no such division is made as far as we can ascertain from census or state reports. Moreover, in case births are not accurately reported there will be a difference in the rate.

If we had the same accurate birth registration as practiced in European countries, you would see some difference in regard to the statistics of so-called maternal deaths. In the old countries, birth registration laws are very rigidly enforced, especially in those countries having strict military laws. Every birth must be registered and accounted for. Americans are very lax in observing the law in regard to birth registration. Some states have no birth registration worthy of the name. If we have no accurate birth registration we cannot fairly compute the maternal mortality rate. In arriving at maternal mortality percentage rates for any country, the number of deaths in the puerperal state are compared with the number of confinements, that is the number of births including still births.

In 1920, under the heading of "Deaths Associated with Pregnancy," according to the report of the Registrar General of England and Wales, there were 1,086 deaths in the puerperal state which were not due directly to pregnancy, but associated with pregnancy, such as pneumonia, influenza, tuberculosis, and the so-called Brights disease. If these deaths were included the rate would have been raised from 4.12 to 5.46 per 1,000 live births. In Massachusetts, we have no such exceptions. We have been told at various times that U. S. occupies the sixth position in puerperal mortality rates among the nations of the world. But if we were allowed to deduct the diseases associated

with the puerperal state, the author feels that the rate would be appreciably lower.

The Massachusetts State Department of Health recently issued a report in which it was stated that there were more maternal deaths in Massachusetts than were reported by the official authorities.

In this report, there were recorded 132 maternal deaths more in Massachusetts than appear in the official report issued by the State Registrar of Vital Statistics. It is true that the compiler of this list of the State Department was a statistician and not a physician. No notice of the Health Department publication would be taken by me today were it not for an incident that occurred last winter at a hearing at the State House. The incident is as follows: A legislative committee was hearing an advocate for a bill which had for its object the granting of certain maternity benefits to expectant mothers. The advocate for this bill did not quote the official figures which are the records of these deaths and are published as the true authoritative records of the Commonwealth, but quoted the figures that were compiled by the statistician of the State Department of Health; and further contended as the number of these deaths was large, therefore, Massachusetts should enact a maternity benefit law. I will quote from the publication of the State Department of Health some of the causes of death, as deaths in the puerperal state, and I will ask you to judge whether or no these deaths are properly classified. Forty-two women are said to have died with organic disease of the heart while they were in the puerperal state. The cause of death in the most of these cases was undoubtedly due to the accompanying heart disease and therefore not a true maternal death. In England and Wales, where the same classification is used that is used in the United States, such deaths are recorded as deaths associated with the puerperal state and as a consequence of such a modification the percentage of deaths in the puerperal state in England and Wales appears as less than if the same method of estimating were used as is used in the United States. Again in Massachusetts, I know of death when the patient was operated for acute appendicitis when she was eight months pregnant, who went into labor two days after, delivered herself and died on the fourth day after her operation for the relief of her appendicitis. This death was recorded as a death of puerperal septicaemia, and consequently a death in the puerperal state. According to the method followed by the English, such a death would have been recorded as a death associated with pregnancy, and not as a death in the puerperal state.

I could recount other instances of reported deaths in the puerperal state which do not properly belong in the list of maternal deaths. Perhaps we should congratulate the State Department of Health for using their publication for it does make our classification rather obscure. Apart from that, I think the State Department of Health publication might be quoted in other parts of the United States as the official record of Massachusetts and it might be quoted as an example of the obstetric service that the physicians of Massachusetts offer to their patients. This

would be manifestly unfair and apropos of this discussion, I would like to quote to you an opinion of the United States Census Bureau, (which in the last analysis is the authority in the United States on maternal death rates) the following which occurred in the report of the last census of United States. "It is impossible to say whether or no there is any appreciable increase in United States in puerperal septicaemia because we do not know how many pregnant women there are in the United States." In England and Wales puerperal septicaemia is a reportable disease. There is a difference of opinion whether that is a good plan or not. Perhaps the following figures will be interesting as a side light on reporting puerperal septicaemia. Sir Arthur Newshome in his latest book on "The Elements of Vital Statistics" makes this significant remark in regard to the reporting of puerperal fever in England and Wales.

"That the notification of puerperal fever is incomplete to a varying extent is shown by the fact that in 1920 there were 473 deaths from this condition to every 1,000 cases notified, 508 to 1,000 cases in county boroughs, 706 in other urban districts, and 812 in rural districts. In the rural districts of Wales the proportion of deaths from puerperal fever to cases notified was 1,364 to 1,000.

Notification of cases being so incomplete, study of the incidence of puerperal sepsis on a large scale must be by means of death rates."

The ideal method, and I think it might be adopted in Massachusetts, would be to compare the number of deaths occurring in connection with live births including still births in terms of 1,000 births. In other words to compare the number of deaths at full term in the puerperal state with 1,000 live births inclusive of still births at full term.

Our English brothers have another method in which they are just to themselves. Previous to 1911, deaths from the albuminuria of pregnancy were not included in deaths in the puerperal state. These deaths are now recorded as deaths in the puerperal state. So that when the English compare their death rate of the present decade with decades before 1911, all deaths from albuminuria are taken out of the classification for the present decade. This works to the advantage of the English and Welsh practitioners. Another matter to bear in mind is that until we have an accurate birth registration in the United States it seems useless to make comparisons between this country and the older countries where birth registration laws are rigidly enforced, because so much depends on a full birth registration. Other factors must be borne in mind, the varied conditions in this vast country of ours, its varying climate, its heterogeneous population, and its large colored population, among whom there is a high mortality in puerperal cases.

I desire to offer the following resolutions which is based on the paper which I have just read.

WHEREAS, There is a lack of uniformity among the several states of the United States in reporting deaths in the puerperal state; and,

WHEREAS, This lack of uniformity has placed

the United States' death rates in the puerperal state in an unfavorable position; be it

RESOLVED, That the Section of Obstetrics and Gynecology of the Massachusetts Medical Society request that the House of Delegates of the American Medical Association in session June 9, 1924, memorialize the Director of the Census Bureau to the end that the Director of the Census Bureau request the several states of the United States to follow the method, under the International Classification of Diseases, adopted by the Registrar-General of England and Wales, in reporting mortality rates in the puerperal state.

The above resolution was unanimously adopted.

Mr. Edgar A. Bowers, Framingham: I want to offer my apology for appearing here as a layman before all these physicians but I had the invitation from Dr. Mongan. The statement of Dr. Mongan as to the history of the international classification is substantially as it appears. The first efforts were made in 1837, and 1855 had taken shape in several of the continental countries. In 1893 at the exposition at Chicago the International Committee got together and proposed the international classification, that has been revised every ten years since. The last revision was in 1920. Unfortunately, the Census Bureau at Washington has not yet prepared and furnished the registration officials with the joint index of the causes of death which, by the way, is the basis on which the registration officials reach their conclusions. The question is often asked "How did you arrive at this conclusion" when we have two, three, or more, joint causes of death and the answer we make is that we follow the list of joint causes as furnished us by the Census Bureau. The Census Bureau at Washington follows, in so far as possible, the method adopted by the several countries joining in the international classification, so that in our results we do not favor any particular classification. We are not interested in any particular cause of death in charging the decedents up to the puerperal state or in charging them up to any other morbid condition. We follow the standard, the cut and dried method, that when one, two or more causes appear we consult the index and take the preferred term. That is the result we arrive at.

There are some cases where a death occurs in the puerperal state where the death is not charged up against the puerperal state. They are few but they do occur. It is because this selective method is followed in our classification office and it is the same method that obtains in every registration office in the United States that I know of. If the Census Bureau is to be memorialized in an endeavor to change their classification or the method of selection proposed by them we will gladly follow whatever they suggest but we must follow their instructions now because Massachusetts is in the registration area and was one of the first states to be included in the registration area, and it is probably wise that there is some central agency that recommends, advises and, in fact, makes it mandatory upon the states in the registration area to follow their advice and suggestion, because if a

state does not follow it, it will be dropped from the area.

If the American Medical Association or the Massachusetts Medical Society is successful in having the classification modified and we are so instructed and informed, we will be very glad to follow it. Until that time arrives, however, we must go along possibly in the darkness that has surrounded us thus far, but at least you will know that we simply follow the index of joint causes in charging up this death or that to the various headings. We do not favor any particular group of headings, we do not have knowledge on any particular cause of death more than another, and the result is, I believe, after talking with every physician who has been kind enough to discuss the matter with me, that it is fair, after all. There may be errors but possibly not so many as there would be if one's personal persuasion were allowed to decide for the time being what the cause of death ought to be even though the physician in charge of the case certified in legal manner to what it should be.

Dr. Richard Dutton, Wakefield: Before modifying the classification of deaths in the puerperal state, it would seem to me wise, to make the birth and death certificates as near "fool proof" as possible.

The birth records now call for "present name including maiden name" of mother, where formerly they called for "maiden name" only. This change has not been well noted by physicians and hospitals and as a result so far as the original record of birth is concerned the present name of mother is not recorded as the same as that of father in a very definite number of cases. In other words, when these children have occasion to look up their records some years hence, they will have a very embarrassing situation to clear up and careless statisticians bent on propaganda will be telling of the flagrant illegitimacy in 1923.

The national standard certificate of birth asks the question "Legitimate?", but I doubt if many physicians would be willing to ask such a question of their patients or record an answer. Up to the present time, no records of birth are certified, although such certification would seem much more important for birth than for death.

Causes of death and contributory causes are now too ill-defined to be satisfactory, as is well demonstrated by the large number of deaths recorded from both pneumonia and influenza in 1918 and 1919, whereas nearly all these deaths were of the same type.

The State Department of Health through its statistician and a staff of "doctors" have investigated all deaths during pregnancy in 1922 as recorded in "the Commonwealth" and their report has therefore been studied for suggestions for changes in classification of the puerperal state. Of course, a very large percentage of these deaths are in no way due to the pregnancy whereas in the official vital statistics they are supposed to be caused directly or indirectly thereby. It seems doubtful if it is safe in the long run from a statistical point of view for investigators who have not seen the cases to change diagnosis of legally qualified physicians who have seen the cases and have

signed the official papers. While the statements of the State Department of Health concerning their work, although brief are decidedly ambiguous it is probable and reasonable that they have tabulated nearly all the deaths of the pregnant women, and, so it is safe to compare the deaths among pregnant women with the deaths of all women of child-bearing age—say 20 to 45 years of age to see the influence of pregnancy on mortality.

The general mortality throughout the registration area in the United States, all ages, is approximately 13 per 1000 per year. The mortality of insured women between 20 and 45 is about 5 per 1000 per year. The expected actual mortality of all women between 20 and 45 is not known exactly, but responsible insurance authority advises that the rate is probably about half way between the two figures above given or around 9 per 1000, or possibly a little under.

The State Department of Health with its staff of "doctors" (doctors of medicine, I hope) were able to find 672 deaths *during* pregnancy in 1922. There were approximately 100,000 women pregnant during this period in Massachusetts. The death rate among these women was, therefore, 672 per 100,000. The death rate among all women 20 to 45 was 850 to 900 per 100,000. In other words, pregnancy with its attendant and widely-heralded dangers does not increase woman's net risk of life.

In fact, there were 200 fewer deaths of women in 1922 because of pregnancy, and the expectant mother has from 25 to 30% less chance of dying than has the average woman of the same age, and, the "Joys" rather than the "Glooms" should again take charge of affairs and perhaps Massachusetts' birth rate may then stop dropping.

After comparing our official vital statistics with the report of the Department of Health I am strongly convinced that changes in the International Classification should be adopted but only after deliberate and far-sighted consideration.

MEDICO-LEGAL FACTS

JESSE R. BROWN
ALTON, ILL.

1. In ancient times a physician's services were presumed by law to have been rendered gratuitously, or for whatever the patient was willing to give, as the office of physician was generally filled by a priest.

2. In this country, in modern times, the patient who receives the services of a physician is presumed to be under contract to pay reasonable and usual fees.

3. The failure to call in other consultants in a case does not increase or diminish the physician's liability in a damage suit.

4. If a physician undertakes a case, even though gratuitously, he is obliged to remain in charge so long as his care is needed, unless he be dismissed or sever his relation upon due notice being given.

5. A judgment for fees in a case prevents a suit for malpractice in that same case.

6. The physician is the best judge of the number of visits necessary.

7. When unskillful or negligent treatment is alleged, the burden of proof is on the part of those claiming damages, or even claiming exemption from payment of fees.

8. Lack of skill will not be inferred from a bad result. No physician insures success, unless by special contract.

9. The obligation to pay the doctor devolves upon the patient's estate, should he die.

10. The bill for fees of the physician in a person's last illness takes precedence of other claims, along with funeral expenses, etc.

11. It is wise to collect fees as soon as possible after service is rendered.

12. The fact that a case was treated gratuitously does not in any degree excuse malpractice.

13. The law holds that the party summoning a physician is only the agent of the patient, unless he makes special contract to stand good for the fees.

14. It was held that a father was not obliged to pay the physician of his adult married daughter or his adult son, when sick in his house.

15. A man who called a physician to attend his wife was not allowed to plead that her divorce from a former husband was incomplete and that he was only the woman's paramour.

16. A wife may contract to pay her physician out of her own personal estate but unless this contract is specifically made, the physician must look to the husband for his pay.

17. If a wife be living in adultery, away from her husband, on account of her own fault, the husband is not liable for physician's bill, unless by special contract.

18. A father is liable for a child's necessities and is indictable for manslaughter in neglecting to provide a suitable physician to attend on his sick child, should that child die.

19. Inability of the father to pay does not render a child's estate liable for a physician's attendance on the child.

20. If a child has left the parental roof, the father is not liable for medical services unless rendered with his knowledge, consent and approval, although the consent may be inferred, if no objection is made.

21. The servant or agent of a corporation cannot bind the corporation to pay a physician, whom he calls to attend a fellow servant, unless he has special authority to employ a physician or surgeon.

22. When a physician be so employed and notice be given the corporation and the employment was not questioned, the corporation was held liable.

23. A patient is liable for the fees of a consultant, if he accept his services, even though the consultant was summoned by the family physician, with the understanding that he would pay the consultant, the consultant being ignorant.

24. Where a coroner has authority to employ a physician to make an autopsy, the physician can col-

lect his fee from the county for having made one, at the request of the coroner, whether it be shown that such autopsy was necessary or not.

25. If a physician testify, as an expert on behalf of the prosecution, he can only collect the regular fees of an ordinary witness unless he makes an agreement beforehand.

26. You cannot compel a physician to make an autopsy without paying him his fee, but the autopsy being once made, without the fee, he can be obliged to give testimony as to what was found on such autopsy at the statutory fee or an ordinary witness.

27. A physician in suit for fees will not be allowed to disclose his privileged communication, but it will be just as difficult for the defendant to prove exorbitant charge without making such disclosure himself, so they stand even before the court on that score.

28. A person cannot replevin an amputated limb if the physician walks off with it.

29. A body, once buried, cannot be removed without permission of the owner of the grave, without judicial authority.

30. It is held that a physician does not violate his privilege communication by reporting a case of contagious disease to the health authorities, and the fact that he so reported the case will not hinder him in a suit for fees.

The Madison County Doctor.

PHYSICIANS AND THE TELEPHONE

ATTENTION! Carthage, Macomb, Mt. Sterling, Pittsfield and Rushville physicians.

Recently the Illinois Bell Telephone Company issued an order to the effect that no telephone calls will be transferred in the future. This will work a decided hardship on physicians and the people they serve. The telephone transfer privilege has enabled the public to communicate with their doctor when he is away from his office. The frequent necessity of immediately securing a physician need not be dwelled upon in these pages but when such emergencies do arise the people involved invariably want their own family physician. The telephone is their first thought. Their physician may be at the hospital, attending a medical meeting or what not but if he is not home to answer the telephone call he cannot be located. All this can be avoided by the telephone-transfer privilege. The members of the Adams County Medical Society realize that it takes time and money to transfer such calls. They believe that since the telephone company is in business to render public service they should transfer physicians' calls, if not for others, because this does render an invaluable service which at times may mean the saving of lives. They are perfectly willing to pay a reasonable extra charge for such service.

The Adams County Medical Society has made formal protest against this recent ruling of the Illinois Bell Telephone Company and urge physicians in other cities served by this company to do likewise. If enough pressure is brought to bear we feel sure the telephone

company will make proper arrangements to take care of the demand for this special service.

In the meantime we will wonder if the telephone company ever heard the slogan of the Rotary Club, "He profits most who serves best."

HELIUM GAS NOW USED TO INDUCE SURGICAL SLEEP

Helium gas of the kind used for the inflation of dirigibles has properties that may be utilized in the inducement of surgical sleep, according to Dr. Everett A. Tyler of Philadelphia, who lectured before the Eastern Society of Anesthetics at the fourth session of the society's convention.

Dr. Tyler declared that experiments revealed that the gas induced surgical sleep three times as rapidly as any other known anesthetic and that recovery from its effects is almost instantaneous.

Correspondence

MAKE CLAIM FOR YOUR BONUS AT ONCE

HEADQUARTERS SIXTH CORPS AREA

OFFICE OF THE CORPS AREA COMMANDER

CHICAGO, NOVEMBER 18, 1924.

To: Dr. Harold M. Camp, Secretary, Illinois State Medical Society, Monmouth, Illinois.

1. The Adjutant General of the Army is making every effort to get all men eligible for the Bonus to make their applications, or to decline same, at the very earliest moment.

2. It is thought that the members of your profession are probably in a better position than most any other agency to assist the Adjutant General. Would you please circularize your members and ask them to assist in having all delinquents make their applications? There must be many of these delinquents coming to hospitals or needing medical attention. They probably have failed to apply either through procrastination, or for the reason that they do not know where to go for assistance in preparing the application blanks, or who do not want the bonus.

3. There are many Regular Officers and enlisted men of the Army, Navy and Marine Corps on duty in many cities and towns in your State. These officers and men may be found at Army Posts, recruiting stations, with the Organized Reserves and with the National Guard. In addition, the Red Cross, all American Legion posts,

the Veterans' Bureau and Post Offices are ready and willing to assist.

4. Your assistance in this matter will be greatly appreciated.

For the Commanding General,

CHARLES C. SMITH,

Colonel, A. G. D., Adjutant General.

1819 West Pershing Road.

PNEUMONIC PLAGUE AND POLITICS

Chicago, Illinois, November 27, 1924.

To the Editor: Twenty-five years ago I arrived in San Francisco from the war in the Philippine Islands. The fortune of war had made my name well known and the day that I landed from the transport, I was invited to a conference with the Governor of California, and other State and City officials.

Briefly I was informed that my services were needed to prove to the people of California and the Federal Government, in particular, that the report sent to Washington by the surgeon in charge of the Public Health Service that bubonic plague existed was an error.

I called upon Dr. J. J. Kinyoun, the surgeon in charge of the Federal work, and a few minutes in his laboratory proved conclusively that bubonic plague did exist.

I reported back to the State authorities accordingly and advised an immediate and aggressive campaign to eradicate it, citing my experience in the Orient and assuring them that there was little danger if experienced medical men were given complete charge.

The reply was "Business will be injured and millions of dollars lost to San Francisco and the State if the report is not denied." To my knowledge great influence was brought to bear upon Dr. Kinyoun to change or at least modify his report. He never wavered. City and State fought his report through every political channel and it was not until adjoining States put down a strict quarantine that a determined fight was made to eradicate the plague. It was accomplished in short order when the problem was taken out of politics and handed over to the medical men.

A lesson was taught and we have the evidence today that it has not been forgotten. Los Angeles had a small epidemic of pneumonic plague a month or two ago in the crowded native (Mexican) quarter. Presto! The medical men respon-

sible for health conditions in the City and State were immediately put in charge, the infected district cleaned up and quarantined, and thirty days later, the Federal Government had lifted the quarantine.

The following telegram from the Los Angeles Chamber of Commerce is a testimonial to Dr. Kinyoun, a doctor who fought the officials of a great State and won a victory for the medical profession:

WESTERN UNION TELEGRAM

Los Angeles, Calif., Nov. 19, 1924.

Colonel P. J. H. Farrell,
25 E. Washington St.,
Chicago, Illinois.

City of Los Angeles has appropriated two hundred fifty thousand dollars carry on campaign instituted BY STATE AND GOVERNMENT HEALTH AUTHORITIES to clean up rodents and otherwise safeguard Los Angeles from recurrence of plague. Period. Small epidemic completely stamped out. Period. Quarantine lifted and every safeguard thrown around situation to prevent for all time such a condition.

Signed,

A. G. ARNOLL,

Secretary Los Angeles Chamber of Commerce.

P. J. H. FARRELL.

25 East Washington St.

NEW YORK SKIN AND CANCER HOSPITAL

Alumni New York Skin and Cancer Hospital: Graduates of this Post-Graduate School are requested to send their present professional office address to the secretary of the re-organized Alumni Association.

DR. HERMAN GOODMAN,

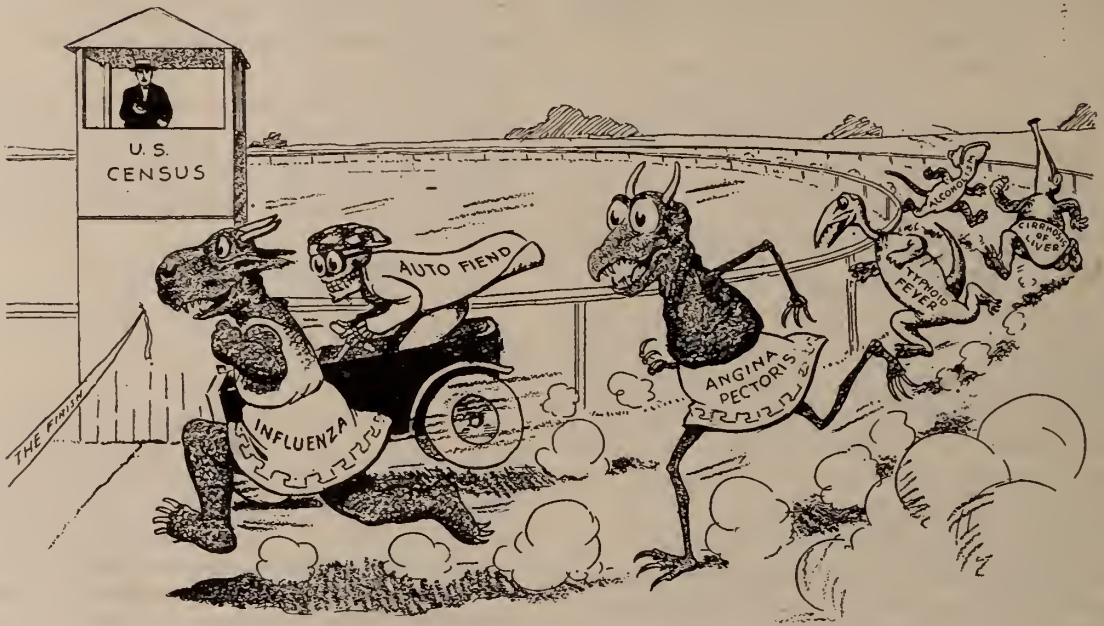
15 Central Park West,

New York City.

ADDISON'S DISEASE TREATED BY SUPRARENAL GRAFTING

Subcutaneous grafting of a suprarenal gland in the inguinal region was without effect. The suprarenal from a fetus removed just before death was then grafted into the capsule of the patient's left testicle. Gradually, after an interval of two or three months, he began to improve. Hydrochloric acid and iron were given by mouth, a blood transfusion was performed, and the man became able to attend to his business. Severe symptoms ceased but the marked pigmentation was unaltered. The suprarenal graft can be felt as a nodule on palpating the testicle.—A. F. Hurst (*British Medical Journal*, Feb. 18, 1922).

Mr. Auto Fiend Runs Neck and Neck with Influenza and Easily Beats Typhoid Fever in the Marathon of Death



LIFE EXTENSION INSTITUTE, NEW YORK

Courtesy of the Life Extension Institute

McGINN & E.L.F.

THE CHUMPS' VACATION

With Apologies to Walt Mason

HENRY G. OHLS, M. D.

To the Editor: I had a dream of boyhood back on an Eastern farm; a vision seen through golden haze that filled my soul with charm. The purple Concords on the vine promised a drink to quaff, before the Volstead affliction warned us we must lay off. The cows in the pasture idyllic chewing as they stood—never heard of pasteurization—made milk as clean as they could. And as they strolled through the woodland with shadows flecking their side, they presented a wonderful picture, worthy a Bonheur's pride. The spring gushed out from the hillside, the brook rippled down to the lake, without any doping with chlorine to make its cool water "safe." The rustic maiden blushing at merry husking bee rewarded red ear finders—perhaps 'twas you or me. Forgotten was the backache from grinding sickles bright, the endless toil in harvest from morn till dewy night. Forgotten long the horses that toiled in hub deep loam where now the flivver spins along o'er roads as hard as stone. Beguiled by visions of the past I searched the papers then to find where pleasures such as these could be procured and when. Among the places scattered far, from Canada to Ravenswood, a line stood out in bold face type,

"REST HAVEN—COME, WE'LL DO
YOU GOOD"

Alas, alack, let him beware who rises to the gudgeon's bait, for if you read this fable true, you'll find he "did" us sure as fate. Enchanted by description rare (which tallied with my youthful dream) I called

a council then and there to settle on our summer scheme. My good wife, Ura, and the kids, (the family unanimous) agreed with daddy—it's a fact—that Haven was the place for us.

In haste we packed our dunnage and ran the flivver out; right merrily we hustled and started with a shout. I hate to tell what happened to spoil our summer's glee, but of one thing I'm certain "there otta be a law," you'll agree. Well, we motored to the Haven to cash in our happy dream, and while Nature surely charmed us creature comforts were not seen. Bed ticks filled with husks are lumpy, never soothe the sleeper well, but when cobs are also in it then 'tis time to rise and yell. So the night wore on till sudden crashed the raucous warning bell and we dressed with hope returning we'd enjoy our breakfast well. Plate of wheats with country sausage would for evil rest atone. Fragrant Mocha, golden butter, all were there—but not alone! You can choose your city cafes with orchestral din, if wise, but this rural place of torment had its band of singing flies winging in the slanting sun rays to our food from where? you'd learn. You can guess; I've my opinion gained from sick bed on return. Anyway the noisome outhouse not far from the shallow well offered flies an open fairway; Surely now you all can tell! Since returning from vacation, tossing on a cot of pain, Widal test and sundry samples prove that typhoid's here again.

Ima Chump.

Editor's Note: Friend Chump is right. He is not the only one who's been stung at unsanitary summer resorts; indeed, about one-half the cases of typhoid of the larger cities in the Fall originate in such places as he describes.

Original Articles

THE VALUE OF IODIN IN EXOPHTHALMIC GOITER*

HENRY S. PLUMMER, M. D., AND

WALTER M. BOOTHBY, M. D.

Division of Medicine and Section on Clinical Metabolism,
Mayo Clinic

ROCHESTER, MINNESOTA

Iodin has been the unknown active principle in many of the therapeutic concoctions which have been used for centuries in the treatment of goiter. The first authentic record is found in the *Practica*, written about 1170 by Roger of the University of Salerno. Roger described both goiter and scrofula and recommended for their treatment the ashes of sponge and seaweed. That iodine was the active substance in these remedies was not known until 1820, when Coindet, a Swiss physician, published investigations which showed that iodine benefited many patients with goiter, especially by reducing the size of the thyroid gland. In 1850 Chatin, a French physician, demonstrated that small doses of iodine would prevent the development of endemic goiter and cretinism. Following the reports of Coindet, Chatin and others, the use of iodine, usually in the form of potassium iodide, in the treatment of goiter became very common, and as a result it was found that many patients, instead of being benefited, were made much worse. Kocher, especially, has emphasized the dangers of an indiscriminate administration of iodine to patients with goiter. Our experience confirms in a certain definite but restricted sense, the opinion of Kocher and others, as we also have repeatedly seen patients with adenomatous goiter without hyperthyroidism rendered "hyperthyroid" by the administration of iodine.

The question of the efficiency and safety of the prophylactic use of iodine in regions in which goiter is endemic was recently reopened by Marine. By an extensive study on the school children of Akron, Ohio, Marine and his associates demonstrated the value of small doses of iodine administered under controlled conditions to school children in reducing the incidence of endemic goiter.

Isolated observations and case reports indicat-

ing the benefit of iodine in exophthalmic goiter are also encountered in the literature. The weight of opinion thus far, however, has been strongly against the use of iodine in this disease. The first extensive study of the effect of iodine in exophthalmic goiter was initiated by Plummer in March, 1922, and a discussion of the theories leading up to its trial, with a preliminary report as to its value was made by him at the meeting of the Association of American Physicians in June, 1923. The present paper will not contain a theoretic discussion of the fundamental principles on which the trial was based, but will be limited to a statement of the results obtained, so far as they can be illustrated by charts showing the course of the basal metabolic rate, pulse rate, and the weight of patients before and after the administration of Lugol's solution.

Liquor iodi compositus, or Lugol's solution, was used as the iodine preparation because it is an aqueous solution of iodine (5 per cent.) and potassium iodide (10 per cent.), and therefore provides a large amount of iodine loosely combined with potassium. It has been found that 10 drops of Lugol's solution, well diluted with water and followed by half a glass of water is, on the average, the optimal dose. Certain patients have been observed who did not react on 5 drops, but did react on 10 drops. Some of the most rapid reactions have been observed when 10 drops were given three times a day. At the present time the routine dose in the average moderately severe case is 10 drops daily; if there is a critical gastro-intestinal or mental crisis, this amount is given three or four times a day for a few days, and then reduced to once a day. If the drug is not tolerated by mouth, it is given in similar doses by rectum; rectal administration, however, has only been found necessary for a few days for patients who had severe gastro-intestinal crisis, and constant nausea and vomiting. As soon as the vomiting was controlled, the solution was given by mouth.

Charts 1 to 10 illustrate the effect on the basal metabolic rate, the pulse rate, and the weight of the administration of Lugol's solution in a few typical cases of exophthalmic goiter; the diagnosis in all cases was confirmed after thyroidectomy by the pathologic finding of diffuse parenchymatous hypertrophy which is characteristic of exophthalmic goiter. In all cases the general

*Read before the meeting of the Tri-State District Medical Association, Des Moines, Iowa, October 29 to November 1, 1923.

clinical signs and symptoms parallel the course of the basal metabolic rate.

Two metabolic determinations (Chart 1) averaged +44 per cent. before the patient was given Lugol's solution, and promptly after the

the administration of Lugol's solution was started; the drop in the basal metabolic rate from +62 per cent. to +9 per cent. with a corresponding improvement in the clinical symptoms seems to be the direct result of the drug.

The control by Lugol's solution of the nausea and vomiting in the gastro-intestinal crises which occur so often in severe cases of exophthalmic goiter is illustrated in Chart 6. The patient entered the hospital in a semi-comatose condition after several days of incessant vomiting of all food and water; her heart was beating so violently that her whole body vibrated with each beat. Thirty drops of Lugol's solution were given immediately by mouth; a part of this was lost by vomiting. Thirty drops were then given by rectum and were mostly retained; a few

hours later 30 drops were given by mouth, only a small part of which was lost by vomiting. The next morning the patient ate a light breakfast, most of which was retained; 30 drops of Lugol's solution in divided doses were given that day, and thereafter 10 drops a day. On the third and fourth day the patient was eating heartily, and by the fifth day taking a full high calorie diet.

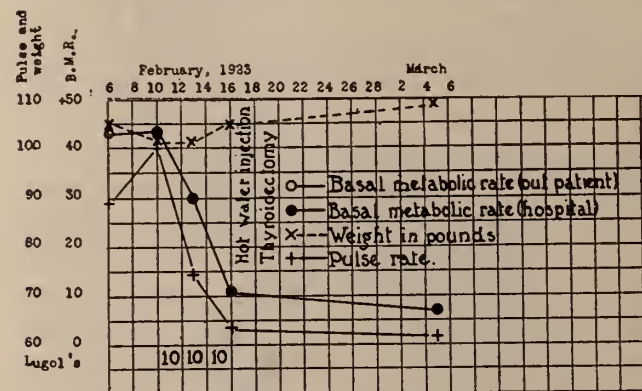


Fig. 1 (Case A417263), a male, aged twenty-two years. Right lobe of thyroid 2.5 by 4.4 cm., left lobe 2.5 by 4.4 cm. Bruit 1; thrills 1; exophthalmos 1; heart 1.5 by 10 cm.; no edema; slight dyspnea; loss of strength; normal weight 112 pounds. Duration of goiter and symptoms about six months.

administration the metabolism rapidly dropped to +12 per cent., and there was a corresponding fall in the pulse rate and a gain in weight. In a similar case (Chart 2), three metabolism tests were made before Lugol's solution was started. The magnitude of the drop between the first and second metabolism tests corresponds to that frequently obtained from rest in bed. The drop in the basal metabolic rate from +54 to +28 per cent. seems due to the influence of the Lugol's solution.

One patient had two metabolism determinations (Chart 3) in December; the rate was +68 per cent., and this remained essentially unchanged three months later, after two ligations and rest at home. The marked drop in the basal metabolic rate from +62 per cent. to +31 per cent., with a corresponding decrease in pulse rate and gain in weight has a very significant time relationship to the administration of Lugol's solution. The same relationship seems to exist in the cases demonstrated in Charts 4 and 5. The evidence presented in Chart 5 is somewhat more convincing, as it was possible to obtain a control period of a week's rest in the hospital without alteration in the metabolism before

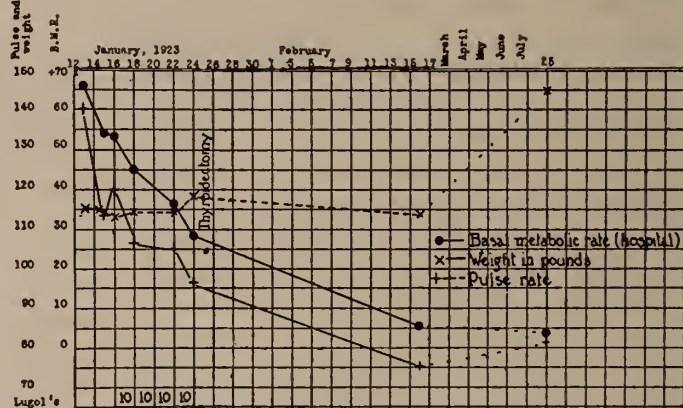


Fig. 2 (Case A414899), a female, aged forty-four years. Right lobe of thyroid 3.8 by 5.6 cm., left lobe 4.4 by 5.6 cm. Bruit 3; thrill 0; exophthalmos 2+; heart 3 by 10 cm.; slight edema; no dyspnea; loss of strength 2; normal weight 140 pounds. Duration of goiter fourteen years with marked symptoms lasting three years, followed by recovery. Four months later symptoms returned and rapidly became severe; jaundice. Patient slightly better; after thyroidectomy very much improved.

Thyroidectomy was performed on the eleventh day with comparatively little reaction. The drop in basal metabolic rate and pulse rate serves as an index of the clinical improvement which was almost unbelievable. The normal values of heat

production in children fourteen years of age are not established with certainty, so the absolute value of the basal metabolic rates given may be somewhat too low, as is suggested by the basal metabolic rate of —28 per cent., two weeks after

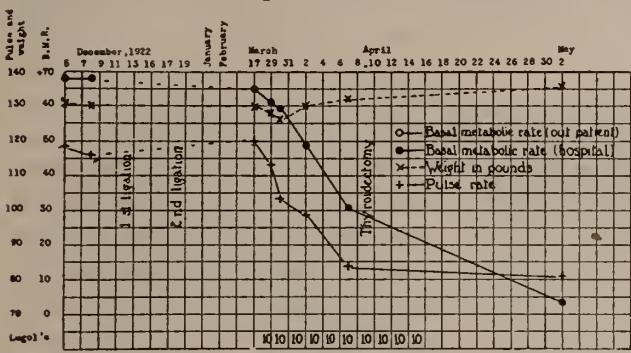


Fig. 3 (Case A411837), a female, aged thirty years. Right lobe of thyroid 6 by 6 cm. Bruit 2+; thrills 2+; exophthalmos 2; heart 1 by 3.5 cm.; no murmur; heaving; slight edema of the legs; loss of strength; normal weight 138 pounds. Duration of goiter 2.5 years; symptoms about one year. No crisis.

operation. This patient was dismissed from observation in excellent condition, and neither at that time nor since has presented the picture of post-operative myxedema. The significance of the absolute value of the basal metabolic rate must be accepted with more circumspection in children than in adults, because of the less exact standards at present available for children.

The patient whose case is illustrated in Chart 7 presents several definite phases of the problem. The patient entered in crisis, and remained in that condition for two weeks with the basal metabolic rate fluctuating between +82 and +98 per cent. Within a few days after starting Lugol's solution, there was a rapid drop in the basal metabolic rate and pulse rate. At that time we did not appreciate how rapidly the beneficial effect of Lugol's solution would pass, after stopping its administration, and it was discontinued at the time of the first ligation. The ligation was without incident, but following it, the metabolism and pulse rapidly rose and were only partly controlled by the administration of Lugol's solution a few days before the second ligation. As a result of several similar experiences, Lugol's solution is now continued through the postoperative period. After the patient's second ligation she went home for two months and returned with increased metabolism, very rapid

pulse, marked cardiac decompensation, edema of the extremities, and fluid in the chest; the pressure dyspnea was relieved by aspiration. There was little or no improvement during the first ten days except that the edema cleared up; the metabolism and pulse remained high; as they had on her first visit, in spite of rest in bed. Shortly after Lugol's solution was started the patient's basal metabolic rate and the pulse rate dropped, and she gained in weight, and improvement in her general clinical condition was marked. As a result, thyroidectomy was performed. The time relationship between the administration of Lugol's solution and the clinical improvement of this patient, as evidenced by the drop in the basal metabolic rate on two separate occasions, seems to be very strong evidence of the beneficial effect of the drug in cases of exophthalmic goiter.

Another illustrative case is demonstrated in Chart 8. The patient was first observed in crisis and rapidly improved following the administration of Lugol's solution. After ligation she went home and for a short period remained about the same, then developed an intense gastrointestinal crisis and rapidly lost 17 or 18 pounds,

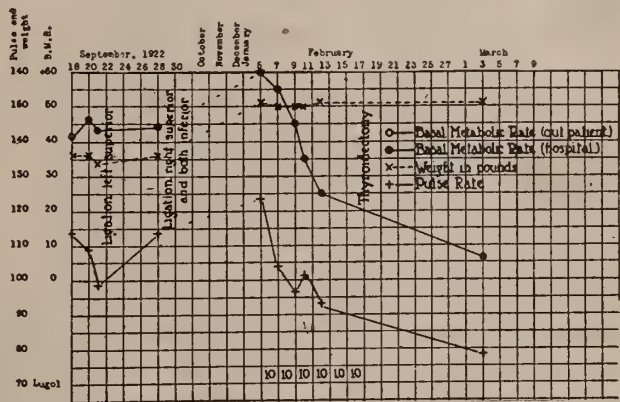


Fig. 4 (Case A404976), a female, aged thirty-three years. Right lobe of thyroid 4.4 by 6 cm., left lobe 3 by 4 cm. Bruit 2; thrills 2; exophthalmos 1+; heart 2.5 by 11 cm.; systolic murmur at apex; no edema; marked dyspnea; loss of strength 2+; normal weight 155 pounds. Duration of goiter five months; symptoms eight months.

as reported by her home physician, who was advised to give 15 drops of Lugol's solution a day. The vomiting stopped quickly and in three months the patient had gained 65 pounds.

A different beneficial effect associated with the postoperative hyperthyroid reaction is illus-

trated in Chart 9. A young girl was operated on the fifth day after starting Lugol's solution. She had a severe typical postoperative hyperthyroid reaction with an elevation of the temperature to 103.4° a few hours after ligation. Following three 10-drop doses of Lugol's solution by rec-

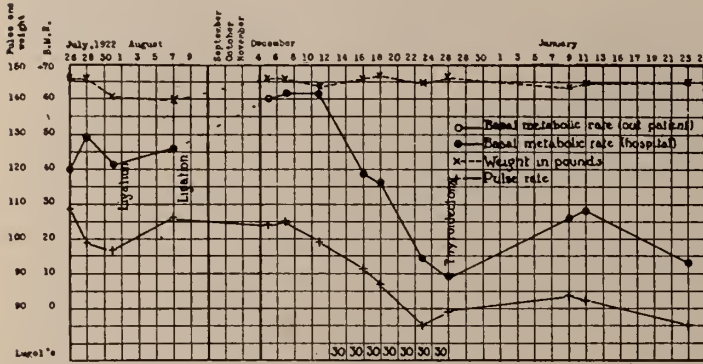


Fig. 5 (Case A399172), a female, aged thirty-seven years. Right lobe of thyroid 4 by 8 cm., left lobe 3 by 6.9 cm. Bruit 4; thrills 2; exophthalmos 2; heart 3.5 by 11.5 cm.; moderate edema; marked loss of strength; normal weight 185 to 200 pounds. Duration of goiter three years; marked symptoms two years. No crisis.

tum at half-hour intervals, the temperature fell within two hours to normal, and by the next day the crisis was over. It seems probable that not sufficient Lugol's solution had been given up to the time of operation to protect the patient completely against the development of the thyroid crisis. She was, however, sufficiently near to the point of desired saturation, so that this could be obtained rapidly by increasing the frequency of administration. The main lesson learned from this case is the advisability of postponing operative procedures until it is evident that no further improvement is to be obtained from Lugol's solution. Maximal improvement usually occurs after the drug has been administered eight or ten days, but may be delayed two, or even three weeks, depending apparently on the size and frequency of the dose, as well as on the patient's condition.

The complete avoidance of the hyperthyroid reaction in spite of an intense pneumonic infection is illustrated by the following case (Chart 10). A young girl with severe exophthalmic goiter promptly improved following administration of Lugol's solution. After thyroidectomy she was in good condition for nearly a day, when her temperature started to go up, and on the following evening was 103°. Although she did not have any of the typical signs of acute post-

operative hyperthyroid crisis, more Lugol's solution was given. On the next afternoon her temperature was 106° and she had all the signs and symptoms of a typical bronchopneumonia with cyanosis, which was relieved by oxygen. The next day she was much better, but the improvement lasted only a short time. The temperature rose, reaching 104°, and examination revealed that the other lung was now involved in the pneumonic process. The next day she was better, and from then on continued to improve. She was recently dismissed from observation in excellent condition. Our experience indicates that without Lugol's solution the patient would have died the

night her temperature first became high, before the pneumonic process was well developed. The death would have been listed as from crisis, with pneumonia as a terminal event, whereas, as the result of the treatment with Lugol's solu-

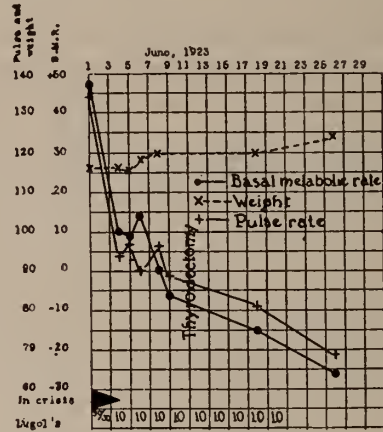


Fig. 6 (Case A427558), a female, aged fourteen years. Right lobe of thyroid 3.7 by 6 cm., left lobe 3.7 by 3.7 cm. Bruit 1; thrill 0; exophthalmos 0; normal weight 135 pounds; heart 1.5 by 4 cm.; heaving and shaking of body; semi-conscious; dyspnea. Duration of goiter eight years; symptoms only three months, very intense with nausea and vomiting. Patient entered Clinic in typical extreme gastro-intestinal crisis.

tion, there was practically no thyroid crisis, but she did have an intense double broncho-pneumonia. The prevention of the thyroid crisis by Lugol's solution apparently made it possible for the patient to survive the uncomplicated, although severe, double pneumonia.

The magnitude of the drop in the basal metabolic rate and the close relationship in time to the administration of Lugol's solution, as shown in Charts 1 to 10, is much more marked than

any reported by Means as the result of roentgen-ray treatment, or by Kessel, Lieb and Hyman, following rest in bed without treatment. However, attention must be directed to the fact that these patients, according to Kessel, Hyman and Lande, were not untreated, but did have "io-

exophthalmic goiter, all of whom received Lugol's solution; thirteen of these did not have a sufficient number of metabolism tests on which to base an opinion. Of the forty-three patients carefully studied, sixteen (37 per cent.) improved markedly and promptly after the admin-

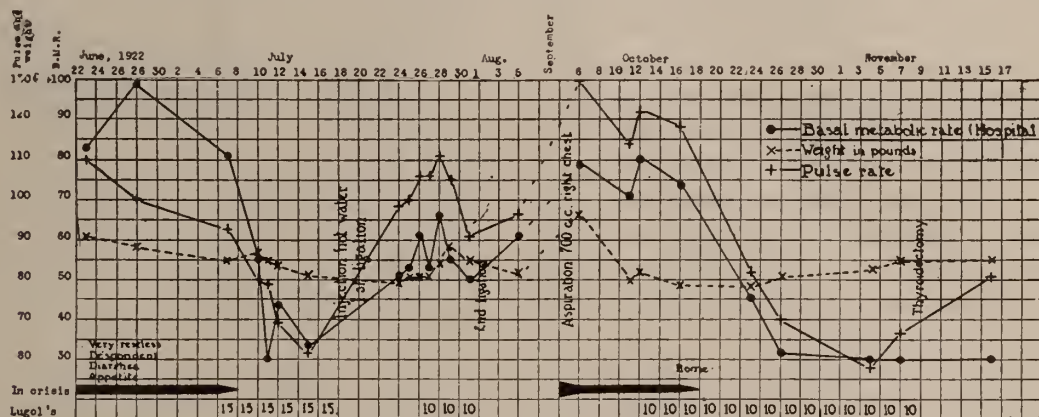


Fig. 7 (Case A395778), a female, aged forty-six years. Right lobe of thyroid 4 by 6.9 cm., left lobe 3 by 6 cm. Bruit 2; thrill 3; exophthalmos 0; heart dyspnea on exertion; loss of strength marked; normal three months; course intense and progressive. Patient worse with auricular fibrillation and decompensation.

din (syrup of ferrous iodid) given to reduce the neck circumference"; it is probable that the beneficial results which Kessel and his associates attributed solely to rest were due, at least in part, to the action of iodine.

A conservative estimate of the number of patients having exophthalmic goiter, so far treated with Lugol's solution at the Mayo Clinic, is 600. During this time no patient with unquestioned exophthalmic goiter has been made worse by the Lugol's solution. October 19, a count was made of the patients then in the hospital under treatment for goiter, to estimate the relative frequency of a beneficial effect from the administration of Lugol's solution. There were twenty patients with adenomatous goiter, with or without hyperthyroidism, who did not receive Lugol's solution. Five patients, possibly having adenomatous goiter with hyperthyroidism, were given Lugol's solution because exophthalmic goiter could not be definitely excluded; of these, one improved definitely, and three slightly; the data concerning one patient was not sufficient to base an opinion on. Fifty-six patients had definite

istration of Lugol's solution; fourteen (32 per cent.) improved definitely, and eleven (26 per cent.) improved only slightly, as after hospitalization and rest; only two (5 per cent.) were not affected. From this survey it seems probable

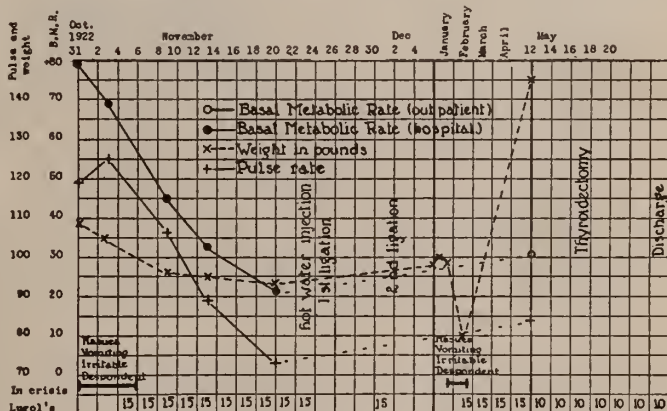


Fig. 8 (Case A408926), a female, aged twenty-five years. Right lobe of thyroid 3.7 by 6 cm., left lobe 3.7 by 6 cm. Bruit 2; thrills 1; exophthalmos 2+; heart 1.5 by 4.5 cm.; slight edema of legs; marked loss of strength; normal weight 140 pounds. Duration of goiter ten months; with severe crisis four months.

that approximately two-thirds of the patients with exophthalmic goiter will be greatly benefited; one-fourth will be slightly benefited; the remainder, or about one patient in twenty, will

not be benefited. The probability of the iodine doing harm is less than 1 in 600.

As has been reported by Pemberton, the mortality rate following surgical procedures for exophthalmic goiter has been reduced at the Mayo Clinic to 1.7 per cent., based on the number of patients operated on, and to less than 1 per cent. when computed on the basis of the number of operations. Crile was, in the main, correct when he attributed this low mortality rate to surgical technic, instead of to the preoperative treatment and medication. That factors other than surgical technic affect indirectly and in a complicated manner the surgical mortality is borne out by the following facts: In 1918 sixteen patients with exophthalmic goiter died before operative procedures were possible; in 1919 eighteen died; in 1920, fifteen; in 1921, ten; in 1922, sixteen, or an average of fifteen deaths during each of the last five years. Until this year no drug was available which was known to influence materially the natural course of the disease, or which could be administered with the expectation that it would avert impending death.

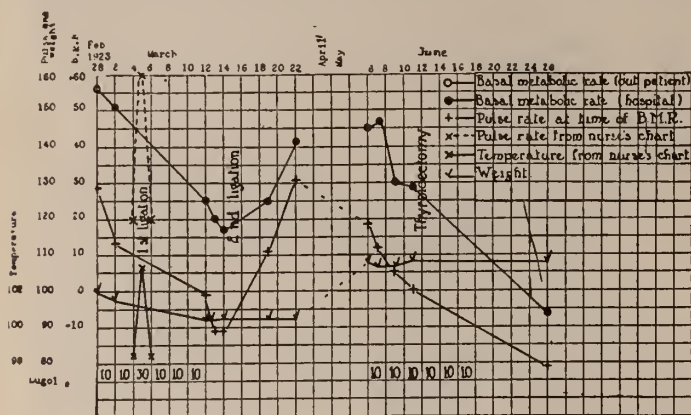


Fig. 9 (Case A419022), a female, aged eighteen years. Right lobe of thyroid 3 by 5 cm., left lobe 3 by 5 cm. Bruit 2; thrills 1+; exophthalmos 1; normal weight 105 pounds; heart 2 by 7.5 cm. with systolic murmur at apex and pulmonic area; loss of strength 2. Duration of goiter two and one-half years, symptoms one year progressing to date. Marked reaction following first ligation, apparently controlled by Lugol's solution.

During nine and one-half months of the present year, apparently as the result of the treatment with Lugol's solution, only four patients have died before surgical intervention was possible. All who have observed the improvement in the

patients with exophthalmic goiter following the administration of this drug are convinced of its value in this disease. Not only has the pre-

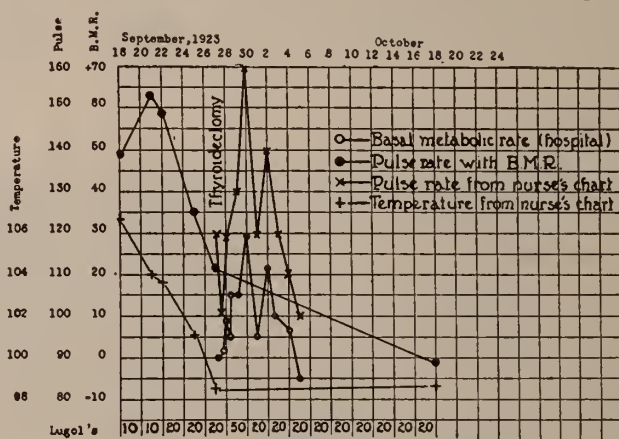


Fig. 10 (Case A441468), a female, aged seventeen years. Thyroid symmetrically enlarged. Bruit, thrills and exophthalmos present; heart 3 by 8 cm.; harsh systolic and diastolic murmurs at apex suggesting mitral insufficiency and stenosis. Duration of goiter six months, symptoms increasing in severity three months. Erythema of elbows. Severe postoperative double broncho-pneumonia.

operative mortality rate been reduced, but these patients have afterward been accepted by the surgeons as operative risks. In spite of these initially bad cases being accepted later as operative risks, after improvement from Lugol's solution, the surgical mortality rate and the frequency of the typical postoperative hyperthyroid reaction resulting in death has, as shown by Pemberton, progressively decreased.

BIBLIOGRAPHY

1. Chatin: *Compt. rend. Soc. de biol.*, 1850, xxx, 352; xxxi, 280.
2. Coindet: *Découverte d'un nouveau remède contre le goitre. (Iodine.) Ann. de chim. et de phys.*, 1829, xv, 49-59.
3. Garrison, F. H.: *An introduction to the history of medicine with medical chronology, suggestions for study and bibliographic data*, 3 ed., Philadelphia, Saunders, 1921, p. 199.
4. Kessel, L., Lieb, C. C., Hyman, H. T. and Lande, H.: *Studies of exophthalmic goiter and the involuntary nervous system. III. A study of fifty consecutive cases of exophthalmic goiter. Arch. Int. Med.*, 1923, xxxi, 433-454.
5. Kessel, L., Lieb, C. C. and Hyman, H. T.: *A study of exophthalmic goiter and the involuntary nervous system. IX. An estimation of the pathogenesis and the evaluation of therapeutic procedures in exophthalmic goiter. Jour. Am. Med. Assn.*, 1922, lxxix, 1213-1216.
6. Kimball, O. P. and Marine, D.: *The prevention of simple goiter in man. Arch. Int. Med.*, 1918, xxii, 41-44.
7. Kimball, O. P., Rogoff, J. M. and Marine, D.: *The prevention of simple goiter in man. Jour. Am. Med. Assn.*, 1919, lxxiii, 1873-1874.
8. Marine, D., and Kimball, O. P.: *The prevention of simple goiter in man. Jour. Lab. and Clin. Med.*, 1917-1918, iii, 40-48.
9. Marine, D., and Kimball, O. P.: *Prevention of simple goiter in man. Arch. Int. Med.*, 1920, xxv, 661-672.

10. Means, J. H., and Holmes, G. W.: Further observations on the roentgen-ray treatment of toxic goiter. *Arch. Int. Med.*, 1923, xxxi, 303-341.

11. Plummer, H. S.: A preliminary report of the results of administering iodine to patients having exophthalmic goiter (unpublished).

12. Roger: Quoted by Garrison.

MENTAL DISEASE IN ILLINOIS*

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State Alienist

CHICAGO

While mental disease is not the best liked child of general medicine, it is appropriate from time to time for the general practitioner or the specialist along other lines to consider the status of mental disorder and its treatment.

Inasmuch as mental disease is not a reportable one, and there are comparably few cases under private care, the best grasp of the situation we can obtain is naturally by way of statistics obtained in the state hospitals. Some five years ago Illinois began to collect statistics concerning mental disease in the state. The report for the year 1922-1923 is now in the press. It has been the writer's fortune to be associated with our state statistician, Mr. Amick, in preparing this report which will form the basis for the figures hereafter quoted.

The resources mobilized by the state for the care of our mentally diseased represent an investment of about fifteen million dollars in personal property and real estate. Sixty-five to seventy doctors are employed together with some 1,800 nurses and attendants and many other employees.

Special attention is called to a group known as first admissions. We admit each year about 4,800 patients who have never been in a state hospital before so far as we know—fresh cases. It is this group which impresses upon us what mental disease in Illinois means—4,800 patients a year, crippled mentally, many to die later of the physical disease causing their mental abnormality, as in the case of general paralysis of the insane.

Massachusetts gives state hospital care to 446.27 out of every hundred thousand of its population, New York 411.78, Wisconsin 341.54, etc. The average for the United States is about 262 per hundred thousand. In Illinois it is now

303 per every hundred thousand and the total number of 19,000 under care probably represents not over one-third of the total number in the state, because for every one in an institution there are two or three at large.

The manner in which some of the counties utilize the state institutions for the care and custody of their mental cases is interesting and varies a great deal from one county to another. For example, Morgan county admits 193 per year per hundred thousand of its population, while Cook county admits only 84. One of the state hospitals is located in Morgan county, as well as a private institution, which facts doubtless contribute to this very considerable number of first admissions. But there are other counties in the more rural districts such as Pike, Ford, Boone, White, etc., which admit only 18 to 19 per hundred thousand of population—a very small number. It is a question whether they are utilizing the possibilities of state hospital care to its fullest. Later on, however, we shall see that the number of patients coming from rural districts is much smaller than admitted from urban districts. The foreign born population provides many more mental patients in proportion to its numbers, than does the native population—as 125 is to 56—an enormous discrepancy and an argument for better immigration laws and better inspection of such immigrants as we do receive.

All these figures, it is to be remembered, have reference to the group of first admissions, the 4,800 patients coming in each year.

The relative extent of mental disease according to race is most interesting. The mixed race—we recognize no American race for we are a mixed race—furnished 17 per cent. of admissions; Germans 12 per cent.; Slavs and English slightly less; Irish 8.5 per cent.; Africans 6.0 per cent., etc. Later we shall see how these various races contribute to the various types of psychoses.

Many more blacks in proportion to whites find their way into the institutions as mental cases, 214 per cent. of their quota, based upon the number in the state population, as against 96 per cent. of whites.

The relative number of the two sexes among the first admissions vary. The male sex predominates, both in admissions and in the state

*Read at the Annual Meeting of the Illinois State Medical Society, at Springfield, May 7, 1924.

population—64 and 51 per cent. respectively, probably as the result of the greater incidence of alcoholism and syphilis among men.

There are fewer married people in the institutions, and coming in among the first admissions, than we would anticipate from their relative numbers in the population at large. It is probable that dementia praecox, incapacitating as it does the younger members of both sexes, to some extent accounts for this variance. Psychopathy, feeble-mindedness and epilepsy also contribute largely to the quota of the unmarried. There are more than three times as many divorcees among the first admission than in the population at large, pointing to the fact that mental disorder has something to do with the divorce problem.

Out of these 4,770 first admissions—to be exact—for the year 1922-23 3,965, or 84.6 per cent., came from urban districts, that is, from cities and towns of over 2,500 population, while only 15.2 per cent. came from the rural districts. The population of the state as a whole is 67.9 per cent. urban and 32.1 per cent. rural.

We might assume this discrepancy to be due to the increased stress of living in the city, but this does not answer the question in full. There are other angles to the problem that would require too long for their consideration here. It does appear reasonably sure, however, that if one lives in the country he has a better chance of staying mentally "right."

Everyone is quite familiar with the commonly assigned causes of mental disease; hereditary taint, arteriosclerosis, syphilis, inadequate personal make-up, psychic traumata, etc., all take their toll by the way of mental disorder—but do not lay too much stress upon heredity. All cases represent the unsuccessful efforts of the organism as a whole to adjust itself to its environment.

Concerning the classification of these 4,770 patients received for the first time last year, attention is called to the fact that the percentages for 1922-1923 are very much like those of 1921-1922. It is as if there were a great machine grinding out mental disorders, set to produce about so many of each kind each year.

General paralysis of the insane decreased slightly, from 12.5 per cent. in 1922 to 11.7 per cent. last year. There were 9.8 per cent. of senile psychoses in 1922, and 9.7 per cent. in

1923. The alcoholic insane present an interesting fact—there was an increase from 7.5 per cent. in 1921-1922 to 8.9 per cent. in 1922-1923—not an argument for prohibition as it is working out so far as the insane are concerned, which, of course, is only a part of the story, however.

Dementia praecox concerning which so much has been said in late years, is the one great form of disorder that furnishes us with more patients than any other; about 25 per cent. from year to year—1,200 cases in this state alone; 15,000 in the nation every year.

Cerebral arteriosclerosis accounts for 7 per cent. of first admissions. This is one of the problems of preventive medicine nowadays—how to decrease the amount of cardio-vascular diseases. We are overcoming infections and contagious disease but vascular disease is increasing.

Again to illustrate the fact that various factors are at work to produce in mental disease the same result from year to year with almost mathematical certainty, let horizontals represent percentages and verticals represent the various age groups and the resulting curves for 1921-1922 and 1922-1923 will overlie one another almost perfectly. That is, the same percentage between twenty and twenty-nine, between thirty and thirty-nine, etc., become mentally diseased year after year. We are always at the peak between thirty and thirty-nine, where all causes are at work to produce mental breakdown.

Exceedingly interesting is the distribution of the various age groups of these first admissions for the three disorders: General paralysis of the insane, alcoholism and dementia praecox. In the alcoholic psychoses there is a very decided increase in the years between twenty-five and thirty-four, a fact which speaks badly for the effect of present day forms of liquor upon the rising generation, the generation that should now be doing the hard work of the world.

General paralysis of the insane has doubled its percentage between the years of twenty-five and twenty-nine—a fact of bad omen. This probably does not represent many of the indiscretions of the war period because it is too soon for these to appear in the form of general paralysis of the insane, which does not often develop under eight years from the date of the primary infection.

The susceptibility of the leading races to the various types of mental disorder varies considerably. For example, the African exceeds his expectancy by 60 per cent. in general paralysis of the insane. That is, of the number of Africans admitted to the state hospitals 60 per cent. more develop general paralysis of the insane than we have a right to expect, according to the figures for all admissions.

The English also do badly in this psychosis—131 per cent. The Italians reach 125 per cent. The Irish come to the fore in the alcoholic psychoses—184 per cent—almost doubling their expectancy, while the Slavs run about 250 per cent. in this same group.

In dementia praecox the Hebrew comes to the fore with 120 per cent. of his quota. But the Hebrew is not alcoholic—only 13 per cent. of his quota, and in general paralysis of the insane he comes up to less than half of his expectancy—46.6 per cent.

In 1922, 592 paretics were received in the state hospitals of Illinois and in 1923, 560. There is an enrollment in the various hospitals at all times of nearly a thousand, and for the year 1922-1923 there were 453 deaths. The average age at death was forty-five years, a time of life which should be the most productive. Based upon these figures the economic loss from this one mental disease, counting what the man is worth as a productive member of society and what it costs to care for him, is in the neighborhood of \$5,000,000 per year in Illinois alone—and not all cases by any means find their way into a state hospital.

Time does not permit going further into an analysis of the various statistical data remaining unconsidered. Enough has perhaps been said to indicate roughly the present status of mental disorder in Illinois—and in its statistics this state shows no very startling variation from others.

Many other interesting correlations might be made not only in the group of first admissions but in connection with discharges and deaths as well.

DISCUSSION

Dr. Frank P. Norbury, Jacksonville, Illinois, in opening the discussion said: I wish to bring to the attention of the Society the value of the statistical method of study when applied to mental disorders. The statistical method is comparatively new in the medical

problems of state institutions, as it is in medicine in general.

In state institutions the statistical method has become a necessity if there is to be any value in the wonderful accumulation of material available in these institutions. For this reason a number of states have created a department of statistics; notably New York, where Dr. Horatio M. Pollock has developed a statistical technique which has been adopted as the standard by The National Committee for Mental Hygiene, and recommended to all States in this country. The chief aim in statistical methods is to summarize available information on subjects that are vital in the development of policies of management and standards in medical organization.

The statistics of the World War in the Medical Department were compiled according to the scheme developed and directed by Dr. Pollock. Dr. Pollock also organized the section of the statistics of the Department of Public Welfare of Illinois, from which Dr. Read has made quotations and utilized in the slides presented here today.

I am a firm believer in statistics as a means of education, also as a means of investigation where the results of each subject can be stated in definite form and thus utilized to the best advantage. I have been more or less interested in statistics for a good many years, and have made some observations of my own with which some of you are familiar, namely, my observations regarding the Seasonal Curves in Mental Disorders. This feature is worthy of attention on the part of the general practitioner, partially based upon the fact that mental disorders are more marked commencing in February and reaching their height in June than at any other time of the year, excepting the autumnal curve, which begins in September and reaches its height in November. If a physician will keep this in mind, and especially in cases having a tendency to recur, he will find some practical value in this statement.

Dr. Read has shown you that mental disorder, as insanities, become a very prominent consideration in the problems of state welfare, and the vast expenditure of money and the organization necessary in the care and treatment of patients in institutions is perhaps the greatest individual expenditure of money in state work. The state necessarily monopolizes this feature of mental medicine, and it is the duty of every physician to help promote the economic side of these problems by urging early care and treatment, because in so doing you are not only helping the patient but you are helping the state.

Dr. Charles F. Read, Chicago, closing the discussion, said: Just a word, I didn't have an opportunity to say before. The patients are not all remaining in the institutions. *We know it.* I do not want to leave that impression with you. Each year we discharge 2,400 as improved, and five hundred to a thousand as recovered. Also there are a great many sent in without any particular psychosis and who soon leave.

We ask for continued interest in mental hygiene, because that is to a great extent where this great

problem must be solved, in the prevention of these disorders and keeping this great army of nearly five thousand a year from coming into the institutions in the first place—at least in so far as possible.

Should any one desire further information of a statistical character he may obtain the 1922-1923 annual report of the State Statistician by addressing the Public Welfare Department, Springfield.

COINCIDENCE IN SURGERY*

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According to Webster, coincidence is "the condition or fact of happening at the same time." It often is without relationship of cause and effect, and is more or less synonymous with chance and luck.

There is no limit to coincidence and nothing in the world is more certain. It is one of the prominent phenomena of our daily existence and is the frequent cause of the most bizarre and unexpected occurrences. For instance, in Cuzco, Peru, there is only one automobile and only one street car. I happened to be in Cuzco; for the first time in my life, riding in that street car when it collided with the automobile! And again, I once motored into Casper, Wyoming, where I had never been before. A doctor was explaining to a patient that his neuralgia would be benefited by an injection of alcohol and that I should do it. As he spoke, he looked up, saw me driving by, and exclaimed, "There he is now!"

By thinking people, coincidence is given something of its proper place; but many fail to recognize it as frequently as they should, regarding its manifestations as the result of cause and effect, or even as more or less miraculous. Before the advent of science, the coincidence of some important event, like a battle, with a solar eclipse, was regarded as an intervention of the gods; and in later times, those of superior knowledge often have taken advantage of an eclipse to put something over on others who knew nothing of the possibility of its prediction.

Coincidence has much to do with the fame of rain-makers, with the successes of the divining-rod, with the prognostications of prophets, and with the influence of the heavenly bodies upon human affairs. In other words, it is intimately

associated with many of our superstitions and fanciful beliefs.

Coincidence always has been and always will be an important factor in medicine and in surgery, which must be given careful consideration in our various theories and deductions. Although we know how deceptive it is we are apt to forget it, unless our attention is called to it occasionally, which is an excuse for the subject of this address.

From a medical standpoint, we should not lose sight of the important part which coincidence plays in the cure of disease by prayer, and in the practice of quacks and medicine-men of all times and places. Upon it, in fact, depends the very existence of Christian Science and the various "cults," "pathies" and "isms" with which a long-suffering humanity is inflicted. Such charlatanisms thrive upon the certainty that a percentage of recoveries is sure to coincide with any form of treatment, no matter how foolish, if we use it in a sufficient number of cases of a self-limited disease.

Perhaps what I am discussing may appear sufficiently self-evident to require no emphasis; but occasionally the situation is so involved that we easily are lead to false conclusions, of which there is much humiliating evidence in the history of our profession. Let us consider a few of the pitfalls into which coincidence from time to time has led us:

Post-Operative pulmonary affections, such as bronchitis and pneumonia, always have been regarded as complications of general anesthesia, upon what seemed to be good circumstantial evidence—a drug was inhaled and trouble appeared in the lungs, hence the trouble was due to the drug. Few opinions are more firmly rooted than this, as indicated by the term "ether-pneumonia," and yet it probably is largely grounded upon coincidence.

We are beginning to understand that these dreaded post-operative affections come from a variety of causes with which the anesthetic has comparatively little to do:—from embolism; from defective ventilation of the lungs (due to paresis of the diaphragm and to restricted respiration from pain and gaseous distention); from retention of secretions, owing to the inability to cough; from hypostatic congestion, the result of prolonged decubitus; from traumatism and cool-

*Delivered before the Inter-State Assembly of the Tri-State District Medical Association, Oct. 29, 30, 31 and Nov. 1, Des Moines, Iowa.

ing of the abdominal viscera; from lymphatic infection; and also from the fact that, owing to the independent occurrence of many thousands of operations and many thousands of pulmonary inflammations, it would be strange indeed if they failed to coincide occasionally without the relation of cause and effect, like ingrowing toe nail and baldness. Curiously enough, we are not inclined to blame the anesthetic for the occurrence of an influenza, although we do so without hesitation when it comes to ordinary pneumonia or bronchitis.

The law of probabilities asserts that "When two events are independent of each other, the product of their separate probabilities forms the probability of their concurrence." In other words, if the probability of a man being operated upon and the probability of his having an independent pneumonia were each one in ten, the probability of their coincidence would be one in one hundred.

Although it is difficult to deny that a few pneumonias are due to the inhalation of vomitus or pharyngeal secretions, yet even this has been disputed; not only because such inhalations occur during most anesthetics without disaster, but also because injections of infective material into the tracheas of anesthetized animals have been found by certain observers to be harmless.

It will help us to a more correct appreciation of the situation if we remember the comparative rarity of pulmonary complications following operations other than those upon the abdomen. In fact, it is seldom that a pneumonia appears after an amputation, an arthrectomy, a trephining, a plastic operation, etc. And, furthermore, it recently has been shown by long series of cases (for instance, hernias), that affections of the lungs occur almost as frequently after local anesthesia as when general anesthetics have been employed. In addition to the light it throws upon the question under discussion, this should make us hesitate to discard, in major operations, the blessings of ether-unconsciousness for the horrors so often attending local anesthesia—to say nothing of the more favorable working conditions afforded.

Pain in the right iliac fossa too often is regarded by doctors as an indication of appendicitis, forgetting that the concurrence of pain and

an appendix may be a coincidence only, even when the appendix shows evidence of disease. This belief is so firm that it is not shaken by the fact that the removal of the suspected organ fails to stop the pain, in a large number of instances, or by the knowledge that many other abnormalities may cause distress in this region, such as mesenteric lymphadenitis, movable caecum, Jackson's membrane, patulous ileo-cecal valve, spastic ileus, diseased adnexa, etc., not to mention hysteria and the disturbances due to gallbladder, kidney and spinal nerves. Primitive medicine-men, from time immemorial, have cured appendicitis by sucking stones and insects from the abdomen and producing these objects to prove the correctness of their diagnosis and treatment, much as a surgeon exhibits an appendix.

The recovery of a number of consecutive cases following a certain operation often encourages the idea that the procedure is without danger, or that a special technique is infallible; and yet such a run of fortunate cases may mean no more than, because a reckless motorist has passed a "blind corner" many times without accident, he can continue to do so indefinitely. We easily recognize these "lucky runs" in cards, but we are too apt to overlook their significance in surgery. I once knew an operator who reported a hundred consecutive hysterectomies for fibroids without a death, from which he drew the conclusion that he had the surgical world by the tail. The next four patients died.

How many cases, then, does it take to prove anything? There is no definite answer to this. All that can be said is that the greater the number the better the proof, and that we must ever be on guard against coincidence—against the temptation to assume that because a certain number of individuals got well, it was the treatment that cured them. The highway of medicine is strewn with therapeutic wrecks of this description, especially in connection with erysipelas and the acute infectious and pulmonary diseases. We not only deceive ourselves by such faulty reasoning, but it also leads to a loss of confidence by the laity, when they ultimately find out that our pretensions were without foundation. By such means is the door opened to the charlatan, who, when the regular profession gums the cards, always is ready to proffer a new

deck, which the average citizen does not know is marked.

The coincidence of a surgical intervention with a high or a low resistance on the part of the patient, has so much to do with the result that it deserves more attention than it has received. The older surgeons had this in mind when they refused to do a serious operation in the face of a falling barometer, a refinement which we have lost sight of, but which undoubtedly is sometimes of enough importance to turn the scales in doubtful cases.

Although we quite thoroughly understand that we should hesitate to operate during severe shock, or when resistance is lowered from disease of vital organs, such as the kidneys, there are many conditions in which the danger is not sufficiently appreciated. We need, for instance, a more thorough understanding of the increased risk attending operations upon patients who have, or who have recently had, an acute affection of the air-passages, no matter how slight the "cold" may appear to be. Many post-operative pneumonias undoubtedly have their origin in this form of coincidence.

We have been taught by bitter experience that toxic goiters can only be handled with safety in the intervals between the periods of toxicity; but it is not so clearly understood that the rule also applies to certain other conditions, such as the intermittent jaundice and sepsis associated with a stone in the common bile-duct. The temptation is great to operate during a spell of jaundice, when the patient is really sick; but it is much safer to intervene in an interval, thus taking advantage of the coincidence of a period of greater resistance.

In this connection should be mentioned the pre-operative use of vaccines for the purpose of increasing post-operative resistance to the commoner forms of infectious bacteria. For insufficient reasons this safeguard has been neglected, in spite of the fact that satisfactory results have been obtained from its use. We seem to be content with waiting for the coincidence to occur naturally, instead of pushing the matter ourselves.

That immunity from infection is of the utmost importance in surgery, as well as in medicine, is self-evident. In fact the trend of opinion, as voiced by Sir Almroth Wright, is toward

the idea that the resistance of the tissues probably is worth more than all our antiseptics, which do more harm than good by attacking the living cells before they do the bacteria. This suggests the futility of our multitudinous antiseptic irrigations, with all their attendant inconveniences and discomforts, Wright even questioning the value of the Carrel-Dakin treatment itself.

The great utility of coincident immunity, even in plastic surgery, recently has been demonstrated by Katzenstein. When skin-grafts or flaps are rendered immune by pre-operative infection with the proper bacteria, they may be transplanted to infected surfaces, in spite of the most unfavorable conditions, with every prospect of primary union. In this way can be cured old ulcers of the leg and of amputation-stumps, even though connected with the bone, while without this preliminary preparation failure is the usual outcome.

Statistics, it has been said, can be made to prove anything; or, to put it in another way, "There are lies, damned lies, and statistics." While this is obviously exaggerated, nevertheless statistics are tricky things and must be handled with care, if we would avoid being misled by coincidence in some of its varied forms.

Holmes says that "Nothing is more common than to find statistics regarding the appearance of alcoholism in successive generations adduced as sufficient proof of the hereditary effects of alcoholism. One might get the same kind of statistics about taking snuff, chewing tobacco, or using bad grammar."

Before the days of prohibition it was easy to trace a relationship between alcohol and crime, because of their coincidences; but it is not so easy now, when we see crime more prevalent in our dry country than it is in some wet ones.

Hence, for statistics to be of value we must know much about them, and about the men who made them, or they may lead us, from coincidence, into deductions just as absurd as the one arrived at by Mark Twain—that a bed must be a very dangerous place, because so many people die there. We must know, among other things, whether the surgeon who compiled the statistics is especially skilled in operating and in diagnosis, and whether he has a "scientific conscience" or an elastic one. We must know just what is meant by "cured" and by "improved," by "many"

and by "few." We must know the conditions under which the operations were done, the nationality and age of the patients, the season of the year, the presence or absence of epidemics, the manner in which the operative cases were chosen, the number quoted, and whether they were consecutive or not; and we must also make allowance for "runs" of favorable cases, which may be astonishingly misleading.

As an illustration of how careful we must be, I once heard a prominent surgeon read some unusually favorable personal statistics relating to the operative cure of cancer of the breast. A skeptical member of the society questioned him so closely that he finally admitted that, after an operation was begun, if he found the case apparently hopeless, he did not include it in his statistics!

In a similar way men often yield to the temptation to exclude cases that die from causes which in their opinion are not related to the operation. This is so prevalent a source of error that some clinics have decided to include all deaths that occur in the hospital regardless of the cause.

It is always possible to surround an operation with a lot of favorable statistics due to the coincident skill and training of the surgeon. For instance, the plating of fractures, when done by Mr. Lane himself; or the division of the sensory root of the Gasserian ganglion, by Dr. Adson; or resection of the carcinomatous stomach by William Mayo, or operations for hyperthyroidism by Dr. Crile. Unfortunately the average surgeon often fails to see the "joker" in such statistics and makes the mistake of thinking he can do likewise.

A surgeon with an unscientific or an elastic conscience is led easily, almost unwittingly, into false observation and conclusions. He sees a gastric ulcer where there is nothing but a "white spot" or a thickening of the pylorus; an intermittent hydronephrosis whenever the x-ray reveals a kink in a ureter; and a toxic goiter in every nervous woman with a rapid pulse. His "cures" often would be classed as mere improvements by those who are more exact in their statements; and when he speaks of "many" he often means few. We were all familiar with the phrase, "I have tried this in many instances with gratifying results," but we do not know whether this signifies two or three, or fifty.

Allowance likewise must be made for the conditions surrounding a series of operations—whether they are done in well-equipped hospitals or in rural communities; whether in civil or in military practice. And we also should know something about the racial characteristics of those operated upon, which vary immensely. The nervous reaction of Jewish people, for instance, is often decidedly greater than that of others—for example, the natives of Central America, who exhibit but few of the disquieting postoperative symptoms with which we are so familiar. Also, medical missionaries from China and other out-of-the-way places frequently tell us of the rapid and easy convalescence of their patients.

When one bears all these coincidences in mind, should it not lead to care in estimating the scientific value of the vast quantity of statistics being accumulated so laboriously in hospitals all over the country? These often are private hospitals, organized for the care of patients only, and not for research; whose heterogeneous staffs are more or less untrained in scientific procedures, and have nothing in common except that their patients are under the same roof.

In order to avoid deception, it must be quite clear as to just what a given set of statistics is capable of proving. For instance, when it is stated that the average height of a body of men is five feet and eight inches, it may mean that many of them are of this height, or it may mean that by coincidence the statistician has measured a lot of giants and a lot of dwarfs, and that very few of the individuals represent the average. And similarly, when we say that ten per cent. of the people in the world who are over middle age, die of cancer, it is not meant that ten out of every hundred in any given community will succumb to that disease. Some districts will be hard hit while others remain free. Or again, it does not follow that because the operative mortality of general peritonitis is ninety per cent., that ninety out of every hundred cases operated upon will surely die. To any surgeon might occur the coincidence of having fifty favorable cases, even in succession. Hence, it is obvious that we are not justified in telling a patient, as is so frequently done, that statistics show that his chances from a given operation are just so much. The question is too complicated for such a statement. We should use our

judgment in each individual instance, and not allow ourselves to be influenced by statistics, unless we are certain they are free from misleading coincidence.

The principal conclusions to be drawn from all I have had to say are that everything in surgery requires the most rigid scientific scrutiny before it can be accepted, and that we always must be on guard against that arch conspirator—coincidence.

THE PREPARATION OF PROSTATICS FOR OPERATION*

DANIEL N. EISENDRATH, A. B., M. D.

CHICAGO

One of the advantages of intensive study of the urinary tract has been the marked improvement not only in the mortality but also in the morbidity of prostatectomy. This improvement is primarily due to the more careful preparation of the patient and secondarily to changes in the technic of operation. Those of you who see these cases in the course of general practice are vitally interested, no doubt in the first of these, viz.: How can the patient be made as good a risk as is possible? The mortality of prostatectomy is still far higher in some hospitals than it should be. The chief reason why some operators have so low a percentage of deaths after removal of the prostate is that the cases are more carefully studied and prepared.

For clinical purposes one can divide all cases of prostatic enlargement into two groups:

1. Emergency cases—acute retention.
2. Elective cases—chronic retention.

1. *Emergency cases.* In the first group you are called to see the patient whose prostate, usually as the result of an acute congestion, completely prevents the expulsion of urine. The bladder becomes distended as the hours pass after the sudden onset until in extreme cases its upper border reaches to the umbilicus. Your first duty is not to empty the bladder too suddenly. The result of such a complete withdrawal of the urine by catheter may be an immediately fatal one because the kidneys become so acutely congested that they may cease to eliminate and uremia follows because the blood is overloaded with the end products of metabolism

which are usually excreted by the kidneys, liver and alimentary tract.

The best method of treatment of these acute retentions is to insert the catheter with the utmost care and leave it in the bladder until the latter has been gradually emptied. As a rule only two to three days are required, but it is far better to take a week, or even longer, to empty the over-distended bladder than to try and do it at the first sitting.

The upper urinary tract of prostatics is damaged in one or all of three ways. First, there is a damming back of the urine causing distention of the ureter and renal pelvis and in due course of time back pressure on the kidney tissue itself. Second, the urine is infected in the majority of cases even if he has never been catheterized. The infection travels upward from the bladder to the kidney parenchyma and greatly damages the latter, even extending at times into the tissues around the kidney. The third cause of damage to the renal parenchyma is the development of chronic interstitial changes which of course persist even after the prostatic obstruction is removed.

Gradual emptying of the bladder will permit the damaged upper urinary tract to adjust itself to the relief of back pressure and infection, thus permitting the patient to be carried over to a period when operative relief can be considered. One of the best methods for gradual emptying of the bladder is to apply a clamp such as is ordinarily used on irrigators to the distal end of the inlying catheter which is prevented from pulling out of the urethra by being fastened to the penis by adhesive plaster.

If one or two ounces are permitted to escape every hour the bladder is emptied completely in 48 hours. At the end of that time the bladder should be irrigated with some form of urinary antiseptic injecting with a syringe only small quantities (one to three ounces). I have found that an ounce of 1 per cent mercurochrome or 1-2000 mercoxyl solution injected twice daily will soon clean up such bladders. At times neither of these will accomplish as much as weak (1-5000) nitrate of silver solutions.

If the patient will not tolerate an inlying catheter or the bladder is so full of blood clots that the eye of the catheter is constantly obstructed it is advisable to have a suprapubic cystostomy performed and permit the over-distended

*Read before the Section on Surgery, Illinois State Medical Society, Springfield, May 7, 1924.

bladder to empty gradually, preferably through a Pezzar catheter introduced suprapubically.

In hospitals especially equipped for the treatment of urologic cases it is very easy to empty the bladder gradually if some form of decompression apparatus¹ is employed.

The acute retention having been relieved the case passes over into the second group. Before taking up the latter permit me to call your attention to the fact that one must never overlook the possibility that acute urinary retention in elderly men may be due to a urethral stricture accompanying an enlarged prostate, to a tabetic crisis and also to peri-urethral or prostatic abscesses. The latter may even complicate an adenomatous enlargement of the prostate.

2. *Cases of election with more or less chronic retention.* These patients are seen (a) when the urine is still clear and there are no clinical evidences of infection with a relatively small amount of residual² urine or (b) when the urine is infected and the accompanying clinical symptoms, such as fever, thirst, dry skin and tongue, lack of appetite, emaciation and weakness indicate the presence of a more or less advanced degree of urosepsis. In both of these groups of cases of chronic retention we may have oliguria or polyuria. In the former the patient passes a much smaller quantity than normal, while in polyuria much urine but of low specific gravity and solids content is passed. These polyuria cases are indicative of interstitial renal changes and the prognosis is less favorable.

My practice in cases of chronic urinary retention due to adenomatous enlargement of the prostate is the following:

1. Rectal palpation of the size and consistency of the prostate and seminal vesicles. In this way one will avoid overlooking a carcinoma of the prostate.

2. Use of bulbous bougies to detect a possible complicating urethral stricture.

3. More or less routine urethrocytoscopy³ in order to determine one or more of the following:

(a) Whether the adenomatous enlargement is chiefly around the prostatic urethra or protrudes into the bladder, thus enabling one to decide as to whether the perineal or suprapubic method

of removal is the better. Further, whether the case is one of simple contracture of the bladder neck or a median bar.

(b) The presence of calculi, diverticula or neoplasms in the bladder.

4. Cystography⁴ if one has seen the openings of diverticula during the cystoscopy. One can thus secure accurate information as to the size, location and spontaneous emptying power of the diverticula. If the latter are overlooked, pyuria and other evidences of infection will persist after prostatectomy. Cystography will also yield valuable information as to the degree of bladder reflux. By this is meant that if there is incompetency of the uretero-vesical valves fluid is forced upward into the ureters by the contractions of the bladder, a condition which may play an important part in the persistence of renal infection after prostatectomy.

5. Chemical examination of the blood. Of greatest value to the urologist is the knowledge of the degree of retention in the blood of urea and creatinin. When these are above 50 mg. and 3.0 mg. per 100 c. c. respectively, operation is a far greater risk than when the percentage is nearer normal.

6. Determination of the functional capacity of the kidneys with phthalein or indigocarmin. A patient with poor excretion of these dyes is a bad operative risk. The clinical condition will improve step by step as the dye excretion rises and the blood urea and creatinin fall. One should never operate until these have approached approximately normal figures as indicated by improvement of the patient's general condition.

General examination as to high blood pressure, cardiac condition, spinal cord lesions which could cause urinary retention, or diabetes as a complication.

The local and general examination having been completed we proceed to prepare the patient for operation. If he can tolerate an inlying catheter (the majority do so), or there is no complication, such as a vesical calculus or neoplasm, present, we never employ suprapubic drainage because a one-step prostatectomy is to be preferred for many reasons.

Urinary antiseptic solutions are injected into the bladder twice daily through the inlying catheter. The latter is changed at least once a week

1. A lantern slide illustrating a simple form of decompression apparatus was shown.

2. The term "residual urine" indicates the amount retained after the patient has passed urine voluntarily.

3. A large number of slides were shown illustrating the various conditions seen during urethrocytoscopy.

4. 150 c. c. of a 5 per cent solution of sodium iodid are injected into the bladder and anteroposterior and three-quarter lateral x-ray exposures made.

and used until the urine is clear, the blood urea and creatinin nearly normal and the general condition satisfactory. In patients with badly infected urine and in whom an epididymitis is to be feared I do a bilateral ligation of the vas deferens under local anesthesia as early as possible. The sexual function is not disturbed after vasectomy and when one considers the frequency (20 per cent) of epididymitis in prostatics and its severity such a preliminary ligation is justifiable. At Marion's Clinic in Paris it is a routine procedure in prostatics.

Removal of large bladder diverticula is always performed several weeks before the prostatectomy.

In closing let me urge you to "make haste slowly" both in the treatment of cases of acute retention and in that of the chronic retention cases. Our immediate and end-results will be far better if we examine and prepare our patients more thoroughly.

DISCUSSION

Dr. E. S. Murphy, Dixon: The problem that the Doctor emphasized this morning is a very timely one. When an old man presents himself to any one of you gentlemen or to me with an irregular heart there are three types most common to see. One is the case of pain and distress on micturition, the other comes in with a diagnosis of carcinoma of the stomach because of vomiting, but no pain at all, and the third man comes in because of reflex paresis, as tabetics. I will cite you the case of an old man of 71 years who consulted me three years ago because he thought he had a carcinoma of the stomach. He was vomiting and had an irregular pulse. Examination revealed that he had a tumor in the hypogastric region and I said to the man: "I do not know you have a cancer, but you should have a kidney test made to see whether there is a urinary condition or a tumor."

I catheterized the man and drew away 48 ounces and immediately put back 36 ounces of salt solution. I could assure him in the office that he did have a cancer of the stomach. He was vomiting, with no pain, no complaint in the escape of urine. His pulse was very irregular. What I want to emphasize is that it took me about three months before I operated and removed his prostate. I restored his heart by digitalis. I am opposed to the in-lying catheter. I think it is a very dangerous instrument. I formerly used it. When you put a catheter into a man's bladder and leave it there you jeopardize that man's life. He is much more apt to have a epididymitis. If you do a cystotomy he will develop usually an ulceration from the pressure of the catheter. I think it is much safer to open that man's bladder and you do it with a Péan catheter. I do not believe in putting a trocar in the bladder blindly. You open the bladder and put in a Péan catheter. Then leave that wound open without

stitching. In these very critical cases you do not need a depression apparatus. If you put in 12 ounces of fluid that will contract tightly. If you put a stitch around an ordinary tube you are likely to have an infection. I often irrigate these very septic bladders every four hours and then reintroduce the fluid into the bladder to keep up the pressure. What happens when you empty the bladder suddenly? In about ten days the patient is ready to die. There is nothing the Doctor emphasized so well this morning as he did this, that the pressure should not be removed too suddenly. I have had a large series of prostatic cases, averaging from 59 to 87 years. I cannot see how anyone can talk of draining these cases for only ten days before operation. Some of them are not ready to be operated on in ten weeks, much less ten days.

Dr. D. N. Eisendrath, Chicago (closing the discussion): The chief advantage of the in-lying catheter to my mind and especially if you ligate both vasa deferentia, is that there is less danger of epididymitis. In those cases where I leave in an in-lying catheter I change it every four or five days. While it is in there I irrigate that patient with some form of irrigating fluid, 1-5000 or 1-2000 silver nitrate or one per cent mercurochrome. You can tell in advance what form of bacteria you are dealing with. The chief advantages of the decompression is that it is automatic. You do not have to bother; all you have to do is every 24 hours to lower the can and you do not have to touch the bladder. I have seen cases where it took two or three weeks to empty the bladder gradually. As you all know, as the pressure of the urine becomes less the bladder gradually re-acquires its contractility.

There is one point which I want to emphasize and I am glad Dr. Murphy brought it out; that is, you must not empty a bladder suddenly. I saw one patient where the bladder had been emptied quickly and it was filled with blood clots. It took me one hour to get out blood clots so we could do a suprapubic cystotomy. He also had a high blood pressure and as we lowered the pressure of the urine the blood pressure dropped.

THE RELATION OF THE RESPIRATION AND THE CIRCULATION*

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Recently Dr. Henry Sewell of Denver has written that "Every thinking physician recognizes that he is likely to understand his sick man in proportion as he apprehends clinical physiology." This sentence has encouraged me in presenting a phase of clinical physiology, which I believe deserves emphasis to a body of thinking

*Read before the Inter-State Assembly of the Tri-State District Medical Association, Des Moines, Iowa, Oct. 29, 30, 31 and Nov. 1.

physicians, because of its importance in understanding more fully symptoms of heart disease and in rationalizing the treatment of cardiac failure. I wish to present to you the conception of the heart as a respiratory organ. This conception necessarily requires a broad definition of the respiratory function. The essential function of respiration is to supply oxygen to the tissues and to remove carbon dioxide. Viewed in this light respiration forms a large and complex part of physiology, and involves the correlation of various organs and structures. The lungs, the heart, the blood itself, the systemic capillaries and the tissue cells all have their specific duties to perform in the supply of oxygen and the removal of excessive carbon dioxide. The correlation of the activities of these various organs and structures is regulated partly by their own interaction and partly by certain nervous structures found in the medulla. It is a formidable tangle, but for our purpose it may fortunately be simplified by considering only certain relations, and leaving others for the time being out of view. The relation to which I want to direct your attention especially is the part played by the heart in the gaseous exchange between the blood and the fixed tissues, and to discuss briefly the results of the failure of the heart to do its proper share in promoting what is called the internal respiration.

If you will think for a moment of the commonest symptoms presented by patients suffering from heart disease, you will recall that these symptoms except for palpitation are not referable to the heart itself, but to the body as a whole, expressed as weakness, fatigue and malnutrition, or to the breathing, expressed as dyspnea or to the head, expressed as dizziness, mental confusion and disturbing dreams. Pain in or about the heart itself is not an outstanding symptom of cardiac failure or decompensation when aortic aneurysms are excluded, and when exceptions are made of two forms of heart disease. In two cardiac conditions the symptoms are centered largely about the heart, namely in angina pectoris and in coronary occlusion. But in neither instance is the cardiac pain a symptom of circulatory failure resulting in a strict sense from cardiac inefficiency. The common symptoms of cardiac inefficiency are found in other parts of the body.

It is true that we must study the heart to determine why it is not able to carry out its functions normally, but we must study the body as a whole to determine the *degree* to which the heart fails to function normally. The severity of heart disease can not be properly evaluated by study of the heart alone. This must be decided by a study of the peripheral effects of the inefficient circulation, in those parts of the body where symptoms show themselves as disturbances in the capillary circulation where the blood and the tissues come as it were in contact.

The peripheral symptoms and signs of heart disease may be divided into three main groups. First those dependent on mechanical disturbances of the circulation. Secondly, those dependent upon the disturbances of the internal respiration, that is disturbances of the exchange of gases between the blood and the tissues and, thirdly, those dependent upon a disturbance of the circulatory mechanism designed to meet the extra calls of the body for oxygen incident to exertion of every sort. It is impossible actually to separate these groups distinctly, as they are all interrelated, but for purposes of discussion this division may be of value. I wish to discuss especially the second and third groups.

Let us consider the symptoms and signs of heart disease that are to be attributed to a faulty supply of oxygen to the tissues. As every one knows, a constant supply of oxygen is the essential requirement for life of the body as a whole and for the activity of every cell in the body. The human body is provided with a wonderful mechanism, equipped and arranged not only to meet the oxygen needs of every cell but to respond almost instantly to a call for an extra supply of oxygen to be delivered to any part of the body or to all parts. Of the many component parts of this extraordinary mechanism which are all required to be in good working order if health is to be maintained, the heart is one of the most important. But it is the star role played by the heart when an extra supply of oxygen is called for that adds greatly to its prestige in the animal organism. It is also by the inability of the heart to respond in a normal way to the call for an extra supply of oxygen from the tissues that the evidence of cardiac disease usually first manifests itself.

Before considering in detail the symptoms re-

sulting from an insufficient supply of oxygen to the tissues, let us first review in general terms the mechanism for supplying the tissues with oxygen and the manner in which it responds to calls for an extra supply of oxygen. Its four essential component parts are the carriers of oxygen, the hemoglobin in the blood cells, the loading station for oxygen, the lungs, the unloading station for oxygen, the capillaries, and the engine that keeps the carriers moving between stations, the heart. Much is known regarding the normal action and the derangements that are apt to occur in all these component parts of what may be called the respiratory machine with the exception of the unloading station, where the blood and the tissues come into physiological contact at the capillaries. It is known, however, that the unloading facilities can be greatly extended in any part of the body by means of opening up of previously closed capillaries, and that this may be done very rapidly and wherever needed. Much recent work has been done on the subject of the relation of the capillaries to oxygen supply, especially by Krogh and his pupils. The functions of the carrier, the hemoglobin, have only recently been studied minutely, and at this time many investigations regarding the remarkable properties of hemoglobin are being pursued. It is known that in healthy people the amount of hemoglobin found in 100 c.c. of blood can carry approximately 20 c.c. of oxygen, and that the blood takes up 95 per cent. of this amount when exposed to the air in the lungs. It is known also that the blood gives up between 20 per cent. and 30 per cent. of its oxygen as it passes through the resting body, bringing back to the lungs carbon dioxide in place of the oxygen it carried away. This unloading of oxygen is not, however, uniform in all tissues but is regulated according to their separate needs. The total amount unloaded also is not constant, and under conditions of exercise at least 60 per cent. of the oxygen present in the blood may be given up to the tissues. This is one of the most important means by which the extra call for oxygen is met.

The loading station, the lungs, draws in about six liters of air per minute during rest from which the blood takes up approximately 250 c.c. of oxygen. With an extra call for oxygen the

pulmonary ventilation may be increased ten fold and 2000 c.c. of oxygen may be taken up by the blood each minute. Every one is familiar with the increase of rate and depth of breathing that comes with exercise, but the realization of what it means is not so simple, and the method of its production by carbon dioxide is a most interesting subject, which time forces us to pass by. As you know the amount of oxygen taken up by the blood from the lungs is used as a measure of the so-called metabolic rate, and you know that the metabolic rate is raised by exercise, by food, by fever and by certain disorders of which exophthalmic goiter is the most conspicuous example. This means that these conditions add an extra demand for oxygen by the body, which is met by a larger utilization of oxygen than occurs in a normal individual at rest and in a fasting state.

How is this extra demand for oxygen met by the respiratory machine? Increased pulmonary ventilation does not meet it, any more than a pile of merchandise in a railroad warehouse satisfies the people along the railroad who want their goods delivered. When the call is excessive and the merchandise is at the station, the delivery is a railroad problem. In exactly the same way is it the task of the heart to meet the transportation demands when there is an extra call for oxygen. If the heart can't do it, the complaints come from all along the line in the form of symptoms of cardiac failure. What means are employed for carrying the extra amount of oxygen the body needs? A railroad would send more cars between the points of shipment and distribution, and use more motive power, more engines to pull the increased loads. The human body does this and something more. There is a constant flow of carriers in the form of red corpuscles in the circulation between the loading and unloading stations, but they return when the body is at rest only partly unloaded. When the call for oxygen increases with bodily exertion, then the carriers are more fully unloaded in the capillaries, and each one returns to the lungs capable of carrying away twice as much oxygen as before. The increased unloading of the oxygen leaves more space also for the transportation of CO_2 from the tissues, which in turn by a beautiful mechanism maintains the increased pulmonary ventilation. But now let us

consider the motive power of the respiratory machine, the heart, and inquire how it behaves during an increased demand for oxygen. It obviously increases its number of beats per minute from about seventy during bodily rest to twice that number or more. In this way twice as much blood is circulated per minute, provided the cardiac output per beat remains the same under conditions of rest and exercise.

The question of whether the cardiac output increases or remains constant when the amount of blood put out per minute is increased is now under discussion. For many years it was believed that the healthy heart was capable of augmenting its output per beat, but recently evidence has been obtained by Douglas and Haldane that the output of each heart beat is constant regardless of the rate of the heart (at least for one individual, Douglas, whom they studied very carefully). Yandell Henderson has recently defended this conception. After working on this subject I am inclined to believe that individuals differ in this particular as different species of animals apparently differ.

I wish to show you some figures which Dr. Burwell and I have obtained bearing on this subject, the results of an experiment on a normal resting subject.

Subject at complete rest, fourteen hours after food.

Oxygen absorbed per minute	= 236 c. c.
CO ₂ produced per minute	= 200 c. c.
O ₂	CO ₂
vol. per cent	vol. per cent
Arterial blood = 23.59	44.75
Mixed venous blood = 17.62	49.61
Oxygen capacity = 24.83	
Oxygen utilized = 5.97	
CO ₂ produced =	4.86
	per cent
Oxygen saturation, arterial blood	= 95.1
Oxygen saturation, venous blood	= 71.0
Percentage of O ₂ utilized	= 24.1

BLOOD FLOW DETERMINATIONS

On the basis of oxygen consumption

O₂ consumption per minute = 236 c.c.
 Cardiac output per minute = $\frac{236}{5.97} \times 100 = 3953$ c.c.

Output per beat = $\frac{3953}{70} = 56.5$ c.c.

On the basis of CO₂ production

CO₂ production per minute = 200 c.c.

Cardiac output per minute = $\frac{200}{4.86} \times 100 = 4115$ c.c.

Output per beat = $\frac{4115}{70} = 58.8$ c.c.

It is too long a story to describe the method by which the gaseous content of the mixed venous blood has been obtained. The method which has some new features in it that allow its application to patients with heart disease, will be published soon. The gaseous content of the ar-

terial blood was obtained by measuring it with the Vna Slyke apparatus in blood drawn directly from the brachial artery, a procedure that may be carried out, when certain precautions are followed, as easily and with as little pain as venous puncture.

These figures are in substantial agreement with observations on normal resting subjects by one group of workers in this field, while another group have found a larger output of the heart per minute. Carefully controlled and repeated experiments, however, have forced us to conclude that our results are correct. This experiment indicates that under the conditions of the experiment an average of about six c.c. of oxygen is taken from every one hundred c.c. of blood that passes through the systemic capillaries, and that about four liters of blood must pass through the capillaries each minute in order to distribute the 236 c.c. of oxygen which the body utilizes each minute. Unfortunately we have not as yet obtained any results from patients suffering from heart disease, but studies by Lunds-gaard and by Meakins have indicated that there is a distinct diminution in the minute output of the heart even at complete rest in such patients. Meakins and his coworkers think they have shown a diminution of approximately 50 per cent. of the minute output of the heart in uncomplicated cases of mitral stenosis at rest. And yet the same total amount of oxygen is utilized by the body per minute. This result can be brought about only by a utilization of a greater percentage of the oxygen present in the blood than is normally used. Harrop and others have shown that this is actually what happens in heart disease. Then you may ask, if the blood can supply more oxygen when needed by giving up a greater percentage of its oxygen, why do patients with uncomplicated mitral stenosis have symptoms? It is because one of the fundamental factors of reserve, one of the factors of safety, has been called upon under a condition of rest, when normally it is not called upon. Many such patients do not have symptoms when at complete rest. But when an extra call is made by the tissues, especially by the muscles during exercise, the respiratory machine must fall back upon its other fundamental factor in bringing more oxygen to the tissues, namely an increase in the amount of blood put

out by the heart per minute. This mechanism must stand the brunt of the call, and the heart, in this instance a damaged organ, must do its best to meet the demand. The result is an abnormal acceleration of the heart rate, out of proportion to the amount of exertion, so commonly observed in heart disease. The fact that a larger proportion of the oxygen is withdrawn from the blood in its passage through the capillaries is responsible in part for another common evidence of cardiac failure, namely cyanosis. The bluish color of the lips, mucous membranes and nail beds that we call cyanosis is merely an indication that the capillaries determining the color of these parts contain a larger absolute amount of hemoglobin from which the oxygen has been withdrawn, that is reduced hemoglobin, than is normally present. Cyanosis appears according to Lundsgaard and Van Slyke when the mean capillary oxygen unsaturation of the blood amounts to about six and a half volumes per cent. Or expressed differently it means that cyanosis appears when about thirteen volumes per cent. of oxygen are taken out of every 100 c.c. of blood instead of about five or six volumes per cent. as normally occurs in normal resting subjects, provided the blood is carrying away from the lungs its full quota of oxygen. As a matter of fact cyanosis is usually caused by a combination of underloading of the blood with oxygen in the lungs and excessive unloading in the capillaries. This excessive unloading always occurs when the rate of the blood flow is abnormally slow, and it may by itself lead to cyanosis. But as a rule in heart disease edema of the lungs and other factors that may be present, especially emphysema, play a large part in the production of cyanosis. When observed it means that the blood contains an excessive amount of hemoglobin from which the oxygen has been taken, and may be invariably considered as a sign that the oxygen supply to the tissues is inadequate.

Dyspnea, the commonest early complaint of patients with heart disease, may also be blamed upon an undersupply of oxygen and a resulting overproduction of carbon dioxide and other acid substances. Much study has recently been given to unraveling the complex problem of the mechanism responsible for its production. The facts that have been learned still fail to give a complete explanation of cardiac dyspnea, but it is

safe to say that here again is an instance where the respiratory machine fails not primarily on account of inefficiency of the lungs, but because the heart is not able to do its part in supplying the tissues with their normal requirement of oxygen.

Cardiac dyspnea is, however, in part caused by changes in the lungs themselves, changes apparently produced by the disturbance of the pulmonary circulation or a result of cardiac failure. Peabody has especially emphasized the diminution of the vital capacity of the lungs in cardiac patients, and has shown that the amount of air that can be expired after the deepest possible inspiration is diminished in amount in proportion to the degree of cardiac insufficiency. Binger has just published a careful study of the lung volume of normal persons and of patients with heart disease, and has found that the latter have a larger residual air and a smaller vital capacity than normal individuals in proportion to the total lung volume. Patients with heart disease are able to use less of their whole lung capacity in forcible ventilation than is the normal person. So it is seen that heart disease disturbs the respiratory machine at its loading station as well as in its transportation department. Instead of having the lungs in a state in which they can work with increased efficiency, their efficiency is diminished.

What I have said has been expressed more with the object of presenting a point of view, than of imparting facts that may be new to you. As I said at the outset, the conception of the heart as a respiratory organ, as part of what I have called the respiratory machine, is one that I believe to be helpful in understanding many of the symptoms and signs of heart disease. This conception calls for one point of view in regard to the treatment of heart disease, and makes it an attempt to answer the question in any particular case, how can the condition of the patient be altered so that the supply of oxygen is more nearly adequate? This question must be considered from two points of view, namely, that of increasing the supply of oxygen to the tissues and that of diminishing their requirements of oxygen. When this question is properly answered by action based on the two considerations I have mentioned, your patient with heart disease is being treated in the best possible way.

THE SECRETARY'S JOB*

R. R. FERGUSON, M. D.,

CHICAGO.

When the secretary of secretaries wrote me relative to attending the Secretary's Conference here in Springfield, my answer was, that I could see very little benefit accruing to any of us by such a conference, because of the fact that all or most of us are about to go out of office and our new secretaries or those about to take our places were not present, and anything worth while which we might do would be lost to our successors.

I have not changed my mind as yet, but am open to argument with the hope that perhaps this meeting will convince me otherwise.

The word "*Job*" has never entered much into my life as the word itself implies some form of employment with a monetary remuneration, aside from a profession, and such experiences have been few in my short life; and even in some of our professional work, the word "*Job*" should not apply because of the lack of remuneration. A better phrase might be "The Secretary's One Big Charity."

However, the secretary's job, remuneration or not, is what I have been asked to talk about, and I have jotted down a few of the important thoughts which came to me on my way down here.

To my notion there are just two kinds of Secretaries of the county societies—"Live Ones and Dead Ones." May we dismiss the latter, the dead ones, by stating that every county society knows whether or not their own secretary should be buried without further delay. If this is not done forthwith, then the county society will be buried by the secretary.

The live secretary is the man I wish to bring to your attention, and everything that he is or should be, the dead secretary is not and never will be. County secretaries are born, not made.

Go into any county medical society meeting in the state (and I believe there are about 100 of them) and the attendance will tell the story. A live secretary will have a good attendance and this may be accomplished in a number of ways.

First: By having a good speaker on the program. We all like to hear a man who can ably

handle the English language, and most of us will go miles to hear such a man. If there are no funds available for such an undertaking, a good secretary will pay the bill himself. This is one of the honors that go with the job.

Second: By having a subject which will interest practically everybody in the society. Too much scientific material is not good—get up a program on the economics of the profession; on questions of public health as it affects your own community; on the venereal disease problem as practised by the State Board of Health. Have a meeting on the publicity department of the Illinois State Medical Society, and ask our director, Miss Keller, to outline our campaign for the next year. This work is rapidly being organized and the cooperation of every secretary in the State is necessary for its success.

Third: Every meeting should be properly prepared. The fallacy of going to meetings half prepared will soon kill your attendance. The secretary is responsible and should not allow a single meeting to fail because of unpreparedness. He should have something up his sleeve in case of failure due to illness or other unavoidable causes.

Fourth: The secretary's records should be kept in a businesslike manner, so that each succeeding secretary may be handed something more or less intelligible as regards membership, dues, attendance, speakers, etc.

Such records would have been of great value to our present State secretary at the time of his assuming office, had they been available.

Fifth: If your society is small, see or 'phone every man yourself; if large, divide your membership in groups of five or ten with a responsible man in charge of each group, so that every member of your society is seen or 'phoned personally.

Postal cards or letters will bring out less than 10 per cent. Personal contact will bring out from 50 per cent up. A live secretary uses both means.

The county secretary's job should not be confined to the weekly, monthly, bi-monthly or semi-annual meetings. He should be a member of one or more influential civic bodies, and use his influence toward educating the members of such organization to the high purpose of the medical profession. It is well to have joint meetings with such associations once or twice a year, and discuss problems of community and civic nature.

*Read at the Annual Meeting of the Illinois State Medical Society, Springfield, May 7, 1924.

The medical profession should be leaders and not followers on all questions pertaining to the health of the community. As medical men we have been wrapped up in our professional careers too much to give attention to things civic or political. A medical man with his knowledge and education and his ability to read human nature should stand out in every community as a leader in civic affairs, and in public health work, and not allow uplift societies to do medical work without his guidance and council. Civic bodies need our help and the community as a whole needs our help. The secretary of the county medical society is the man to see that properly fitted men are placed in all such responsible positions.

The county secretary should give full cooperation to the important State society committees, such as the legislative committee, which has done such valuable work for the society during the past year. The medico-legal committee needs the moral support of every member of your society, and can get it only through the county medical society.

The county secretary should be responsible for the growth of his society. Every ethical medical man in his county should be solicited either by himself or by a responsible member of the society. We need to be better organized in order that we can protect the health of the people of our State against the onslaughts of the quacks, who, if unchecked, will sow a harvest of death and destruction similar to that witnessed in Chicago only recently, and practiced by those without sufficient knowledge to treat the sick.

The county secretary must make it his business to see that every senator and legislator in his district is interviewed with a view to his enlightenment on health problems. He must be shown that the work of the medical profession has always been actuated by the highest motives, not from a selfish point of view, but from a broad humanitarian view to the end that "only those properly qualified should be entrusted with the lives of our citizens." The single standard of education should be our watchword, for all those who treat the sick.

If the Secretary's Conference is to be the success it ought to be, let us include in our membership the secretaries of all the affiliated societies in the State—the secretaries of all of the branches of the Chicago Medical Society, as well

as their affiliated societies, some 25 in number. By so doing, the Secretaries' Conference may grow to be a power in the State instead of just a secretaries' conference. So far as power to do things is concerned, I would rather be secretary than president, which is only another way of saying I would rather be right than president.

In closing these few remarks, let me state that a live secretary should be kept more than a year, perhaps two or even three years, but never long enough so that he will own the society himself, dictating its policies as well as its officers.

DISCUSSION

Dr. G. C. Otrich (Belleville): I think I talked myself into something coming up on the train with our secretary. This is the first time I have ever attempted to attend the Secretaries' Section and also to be secretary of our county society. I am secretary of the Belleville branch of the St. Clair County Medical Society, which in the past few years has had the worst case of dry rot of any medical society, I guess, in the State.

Now, if I happen to say something that hurts your feelings in being a little bit frank, just forget it—it is all in a life time. The past two or three years our society had its meetings in the evenings, with failure, and we then tried to have them at four o'clock in the afternoon, with failure, and then there was a period of time of about a year or ten months that there were no meetings. A few of us talked this thing over and decided we had to feed the brute. I happen to belong to several of the civic organizations and the only way you can get them out is to feed them and they generally feed them at noon. So the idea came to me that we would call a meeting at noon and see what the results would be. I wasn't elected Secretary at that time and we didn't call it the Belleville branch of the St. Clair County Medical Society. We just decided to have a feed and talk things over, and the result was that we had in the neighborhood of 30 doctors present, which was never heard of before, and I have been in the town for 16 years and should know.

Then we proceeded to elect the president of our Belleville branch of the Medical Society, and they handed me the job of secretary. This might help in getting some of the boys out; I don't know how long it is going to last, it is working at the present time. After the first meeting there was a discussion of who we were going to get for our paper. Some said, "My God, Doc, don't you get enough medicine without that all the time? Give us a rest." We didn't call in any clinics or any professional discussions; we simply had another meeting and the first thing you know some of the boys started something among themselves and we had a rattling good meeting. One of the fellows from out of town said it was the coldest bunch of fellows he ever met in his life—meet them in the hospital and they pass you up. You are not treated like a professional bunch. So the idea was expressed that

we would give these boys a job and we are taking our county meetings to the various surrounding towns in this county. One of the doctors who has attended our meeting is appointed chairman of the entertainment committee and also the arrangement committee. We have had several of these meetings and they are growing by leaps and bounds.

The last meeting was in a small town with only three doctors, and we had a meeting of about 40 doctors. The meeting on May 17 will be held in a town where there is only one doctor. Now, that doctor is as proud of that meeting as any child would be that is getting a new toy.

The next meeting we are going to take out to our aviation field. We have the largest, probably the only large airship center in the United States. We are taking the fellows out and we asked the medical staff to give us a demonstration in their military medicine as applied to the Air Service, and I think that will be a success. But on the whole, by taking the meeting to the fellows, since we are getting good roads they are showing interest.

I don't know just how to put what I want to say—but the fellows will get here and howl and bemoan the fact of the quack and the different practitioners whatever they might be, that are coming in, and let's don't say they are lowering the health conditions in the country, but they are stealing the almighty dollar, and that is hurting the medical profession just as bad as the conscience is, when it comes down to the health of the community not being improved. The only way you can eradicate that disease is through your legislative body.

I want to say for St. Clair County that the Medical Practice Act of this state was practically written by a representative from our district, and these fellows come up here, they are fully instructed, but the thing I would like to have someone help to put over is a campaign which will insure the medical profession a position in the State of Illinois that cannot be tampered with. If the legislative body would draw up a form letter explaining what the society stood for, and then ask the secretary in the county in which the different representatives and senators are elected (no matter what his politics may be) whether he stands back of this medical program that is laid out or not. If he says no, record him as such; if he says yes, endorse him as such. The way this can be carried out is to send out a form letter to every doctor in the district from which this man is elected, and where you are convinced that this man isn't going to back up your program let the doctor address this letter to each and every patient, and sign it himself, asking that they support the representative endorsed by the society, without any consideration of politics but for his own good and the good of the state, and you will see to what extent your Medical Practice Act will come. It is putting the profession in line with politics, but there is no use to beat the devil around the stump. I only offer this as a suggestion, and hope some day we can put it over so that the worry isn't left with a few of the medical men of Springfield and the medi-

cal practice who are on the board that take care of this part of it.

Dr. W. E. Shastid (Pittsfield): I am very much interested in Dr. Ferguson's paper. We have heard mostly from the secretaries of the city societies, and now I will give a wail about the country societies. I think the country societies have a good deal more difficulty in getting good papers and good material than the city societies do, but all the same, we manage now and then to get a very good paper. I see before me one or two men who have read very fine papers in my county, not long ago, with which everybody was much pleased and instructed.

One thing we can do, and that is, the county societies can make a round-up once in a while and get a good man, good specialist in his department to come and give them a good paper and make it so attractive that the country member can't afford to miss it. Since I have been here today I met an old friend and invited him over to read a paper in line with his work. He promised that he would come. So you see I am looking ahead for good papers and good men to read them, outside of my county. It isn't because we haven't good men in the county. I dare say any country practitioner in six months or a year will see one, two or three cases that will be very distinctive, very unusual, and can be made very attractive to the members of any county society.

Dr. Cole voiced that, I think, when he said most of his interesting cases had come from the country, and I think we as secretaries should impress upon our members the need for reporting cases every three or six months or a year that are well worth reporting.

I think also, as Dr. Ferguson has indicated, that the secretary has to have more or less diplomacy, a knack of binding up all the breaches of the peace, trying to amalgamate all kinds of practitioners, trying not to get them in direct opposition, and I think the secretary can do a great deal in keeping down little misunderstandings.

Dr. Harold Swanberg (Quincy): I enjoyed Dr. Ferguson's paper very much, and it seems to me that the county secretary's job depends somewhat upon the community in which he resides. You can do certain things in one place and in another locality the same methods will not work. Another thing is that the county secretary to be successful must have a real enthusiasm for the work; the secretary should like it and be willing to do the work that such a position calls for. We have tried a new plan in our society and so far this year we have increased the membership attending meetings from about 28 per cent to close to 50 per cent. The thing that has helped most to accomplish this has been the publication of a monthly bulletin. We are publishing a bulletin each month, with the exception of the summer months, and it has now reached the stage of 24 pages. This costs the society very little, as practically the entire expense is secured from the advertisements contained therein. Every county society should have a real live bulletin with news notes of what the members are doing, what the society is doing, publication of all papers that are

presented, etc. The publication of a bulletin is, however, a job that takes a great deal of time and if you do not like work, do not start it, because it means much work to get it properly edited and out on time each month, as well as much effort to secure sufficient advertisements. Another thing that I believe has helped our society and which does not cost very much is if a member misses a meeting, the day after the meeting send him a post card saying, "Doctor, we missed you last night at the meeting. We had a fine time and we sincerely hope that you will not fail to come to the next meeting," or something like that. It only costs one cent and the fellow who gets a notice like that feels that he really is a member of the society and the society does not think of him just once a year to secure his dues and forgets about him during the rest of the time. Probably this method would not work in the Chicago Medical Society, but in the smaller societies it only costs from 25 to 40 cents a month and I think it is well worth the effort.

Dr. T. D. Doan (Scottville): I didn't intend to say anything because I had such a jolt by the Chicago secretary that I felt the only thing I could do was to excuse myself. I have been secretary only 12 years and also a delegate. I think there must be something wrong with Macoupin County to put a man in that kind of a place, occupying both places, unanimously, for that number of years, or else there is something right about the society and they want the same man because he does well. I will leave it to you whether he does well or not. Efficiency usually gets there and efficiency is written in the word "Bulletin," Dr. Swanberg.

The bulletin is what has made Adams County Society come out of it the past year. In our society we have now about three and one-third times as many members at each attendance as we had 13 years ago. The first three years we were about three times as many on an average for the year. Whether it is efficiency of the secretary or the bulletin, the county has not changed in size nor the number of physicians, I believe the society is still alive, and I do believe that the bulletin has had something to do with it.

The secretary's job is a thankful job, a thankless job, a useful job, and sometimes if he doesn't do his work it is a useless job.

Dr. C. C. Kost (Dixon): I think Dr. Ferguson struck the nail on the head when he spoke about the personal touch of the secretary to the members of the society. I have only been secretary since the first of the year and have been president twice and I find that the personal touch is one of the main things that gets the members out. We have had a big problem in Dixon. For instance, at our last meeting I thought we had a wonderful program, but I only got 6 out in Dixon, 7 out in Sterling and we have 18 physicians here. The program is sent to each physician in the county, it is advertised in the paper two days before the meeting and each member is called up the morning of the meeting, as we have the meeting in the afternoon, and I find phoning them probably does more good than anything and sometimes I think many papers we have read in our small counties do not reach the

common practitioner. If they do not approach his real practice I feel that he does not have the interest in them.

It is different in the larger counties, but we want a paper that meets the requirements of the general practitioner and not one about something which happens once in a year or a life time and do not ever see another case. It is not very interesting to listen to a paper on removing a needle from the rectum that had been swallowed ten years before.

Lastly, when we realize that the county society is a unit of the State society it behooves us to make every effort to bring it up as near as possible to 100 per cent efficiency.

Dr. R. R. Ferguson (Chicago), closing the discussion: I think the discussion, as it is with most papers, is the most important part of my paper and the things that have been brought out are much more valuable than the paper.

One thing that interested me especially was what the physician at my right spoke about—the secretary being able to heal the troubles between the members. It is one of the important things the secretary in Chicago tries to do and we have many such cases in Chicago.

Another point brought out was the cooperation we are receiving from the State Department of Health at the present time. Perhaps many of you know that the present director was a guest of the State Council in one of our meetings some three or four months ago and we discussed very specifically with him the fact that the State Department of Health was practicing medicine on those who can afford to pay, especially in the venereal disease clinics. Dr. Rawlings assured us that it was not the intention of the Department to give treatment to those who can afford to pay. He and Dr. Bundesen at Chicago have, therefore, agreed to discontinue treating all those who can pay for same.

Another important thing was brought out by our friend, the new secretary from St. Clair County, in regard to being politicians. If we stay out of politics we are going to get skinned every time. We must get into politics and if we have physicians and their friends, the nurses and druggists and the undertakers, if you please, and all our wives all working for our candidate we can trim most anybody in the state and we intend to get our organization so well equipped that we will be able to do these things in the future. We do not lower our profession by entering politics. If it is necessary to gumshoe, let us gumshoe politics, but let us put over the men that are for the Medical Practice Act and thereby protect the people's health.

In stating that I believed there were live and dead secretaries, you must remember there are always exceptions to that rule. The three that have spoken are the three exceptions; these men have shown they are not dead; they are efficient, and if it is the opinion of their society to keep them in office for 18, 20 or 40 years they should be kept there. But as a usual thing when you get a new secretary they will start out on a different line and will do us good. That was my only thought in saying live ones and dead ones. There may be some dead ones that are young ones, but I haven't seen or noticed them.

THE ACHIEVEMENTS OF MEDICAL SCIENCE

MAN'S GREATEST BLESSING*

WM F. GRINSTEAD, M. D.

CAIRO, ILL.

When people become habituated to a benefaction of priceless value they forget that the pleasure of life, even life itself, may depend upon it. This fact is exemplified in the adage: "We never miss the water till the well runs dry." A multitude of observations long since demonstrated to me that life was not worth living without health. Besides these observations I have personally been the victim of disease which took all the pleasure out of my life and I would gladly have approved a deal, the terms of which, required the surrender of the savings for that "Rainy Day" of a laborious life time, if thereby, they would restore my normal body and mind. Without this restoration there was nothing for me to live for. Scientific medicine effected this restoration for an insignificant slice from these savings as I have seen it do for thousands of others.

Why should I not regard this achievement of science, man's greatest blessing? Why should I not be glad that I have devoted my life, which is now watching the setting sun, to a service that all the joys of life are dependent upon?

Herbert Spencer, the profound philosopher and exponent of organic and social evolution and one of the world's most profound students of human life, declared that "Without health and energy the industrial, the parental, the social and all other activities become more or less impossible"; and that, "Vigorous health and its accompanying high spirits, are a larger element of happiness than any other thing whatever."

Disraeli, the Statesman and Novelist and prime minister of England, who died the year I began the practice of medicine, said: "Public health is the foundation on which repose the happiness of the people and the power of a country." Quoting this utterance, William Howard Taft, our own great statesman, and one of the greatest jurists our country ever produced, and upon whom we bestowed the highest political honor in the power of this great nation to confer, declared: "The care of individual and

family health is the first and most patriotic duty of a citizen." (Kelly).

As I see the twilight of life gathering about me I have the gratification vouchsafed by the fact that the greatest, most wonderful revelations of man's greatest blessing have been demonstrated and put into practice during the period of my personal activities. I have had the thrill of a hand clasp, and the joy of a personal acquaintance with that genius who, more than any other man in history, contributed to man's greatest blessing.

I refer to the only doctor that was ever elevated to the peerage in Great Britain. I refer to Lord Lister. He was born in 1827 and died in 1912. In this connection three of the brightest stars in history in the work of preserving life, promoting comfort and happiness in this world, come to mind. They were the sons respectively of a preacher, a tanner and a wine merchant. Their names were Edward Jenner, Louis Pasteur and Joseph Lister. Jenner was an Englishman, born in Gloucester. Pasteur a Frenchman, born in Dole; Lister, an Englishman, born in Essex. Jenner discovered vaccination against smallpox in 1796. This robbed one of the greatest scourges of humanity of its terrors. Today, if we except childhood before the age of responsibility and a few persons who have sought protection by vaccination and failed to secure it, the men and women who succumb to smallpox and expose others to it; and those who suffer hideous disfigurement for life, deserve what they get. No sympathy should be wasted upon them. Jenner did not discover the principle of his wonderful benefaction. It remained for our French hero, Pasteur, to dig this up about 80 years later. Pasteur did not conclude his activities in original research with one illustrious achievement but recorded ten of inestimable value. I am really keen to give details of each but the limits of this address render the discussion impracticable. His basic discovery was that fermentation was due to living micro-organisms. His crowning achievement was his treatment for hydrophobia. I wish every person who hears my voice today would go to the public library and obtain the copy of that splendid magazine, *Hygeia*, which came out in April, 1923, and read the brief biographical sketch of Louis Pasteur by Dr. Victor

*Read before the fiftieth annual meeting of the Southern Illinois Medical Society at Anna, Illinois, November 6, 1924.

C. Vaughan, of the University of Michigan, who was a pupil of Pasteur and himself a great teacher.

Like many great discoveries, that of the principle of vaccination was revealed by accident. Pasteur had learned that chicken cholera was caused by a microbe. He had isolated it and cultivated it through many generations in nutrient media. On one occasion he and his assistants left his laboratory for a vacation of several weeks. On his return he took down some of his cultivated germs which had been uniformly fatal when injected into the blood of chickens; but, to his surprise, when injected now, they did not show serious illness. The microbes had died. Perhaps they had eaten all their food, or the heat disappeared from the incubator. Pasteur proceeded to grow fresh cultures and inoculated these same chickens; but lo and behold! the fowls did not get dangerously sick. The dead microbes in the old cultures had immunized them. In following the thread or line of scientific demonstration of bacterial diseases and immunity against them, it is necessary for a clear understanding, that we keep in mind the definition of a ferment. For that purpose permit me to quote from Gould's Medical Dictionary:—"Any substance which, in contact with another substance, is capable of setting up changes (Fermentation) in the latter without itself undergoing much change."

This is exactly what these living germs do in the body. The layman must understand that these micro-organisms must be magnified many hundreds of times before they can be seen and recognized. Fortunately they can be grown and multiplied through many generations, outside the living body, in suitable culture media kept at body temperature.

Pasteur carried the germs of chicken cholera through 100 generations of culture and found that they were just as promptly fatal when injected into nonimmunized fowls as the first generation. He then produced some cultures in the presence of a weak solution of carbolic acid, and others in the presence of heat, not strong enough to kill them. In this way he produced a family of weaklings that would not kill its host but render it immune to the most virulent cultures.

Lister's attention was accidentally drawn to

Pasteur's demonstration that fermentation was due to micro-organisms. It was the touch of the magic wand that revolutionized modern surgery by Lister; which paved the way to results that are almost miraculous. These men were not far apart in age or location. Pasteur was five years older than Lister. As to distance I ate breakfast one morning in London, where Lister then lived and worked, and ate supper the same day in Paris where Pasteur lived and worked. On another day I ate supper in London and ate breakfast next morning in Edinburgh, Scotland, where Lister formerly worked out his boon to humanity. Now, the airships are making the distance between meals. Lister had noticed that wounds which healed by first intention, without granulations, had no pus and, therefore, no micro-organisms. They got well in a few days. Wounds that got pus were reeking with germs and healed slowly, if at all, and got blood poison, septicemia and pyemia. In his own statistics, following the technique of James Syme, his father-in-law, and the greatest surgeon in Scotland, his mortality in amputations was 45 per cent. Pasteur's destruction of germs by heat could not be employed in amputations. Lister had noticed the disinfection of sewage by carbolic acid in Carlisle, a city in the north of England. He resolved to try it out in the disinfection of wounds. The civilized world now knows the result. Subsequently he wrote Pasteur acknowledging his indebtedness to the latter for pointing the way for his revolutionizing discovery.

Now, what is immunity? This question would require no answer if a modicum of laymen had not been invited to this session of our annual meeting. This statement will apply also to other paragraphs which would be superfluous before an audience of medical men only. If we are too technical we not only fail, in a measure, to instruct a lay audience but we bore them. Immunity is insusceptibility to a given disease when exposed to it. You can't inoculate some people. Everybody knows that certain diseases protect their victims against future attacks. Familiar examples are smallpox and yellow fever. Science has not revealed to us what is left in the body or taken out of it that vouchsafe this protection. Scientists tell us that nature's defensive physiology manufactures substances called antibodies which forbid the in-

vasion of our bodies by these deadly enemies; but they have not demonstrated them to us like Pasteur demonstrated the microbes in fermentation, in boils and childbed fever; like Koch demonstrated the causative germ in tuberculosis and Asiatic cholera; like Nicolaier and Kitasato showed up the demons of lockjaw and bubonic plague, or Noguchi revealed the deadly germ of yellow fever. Scientists have, however, taught us how to speed up nature's antibody factory against many of these terrible diseases and are hot on the trail of others. With the achievements of scientific medicine in preventing the enemy's attack and with the means these achievements have placed in our hands for defeating the enemy after the attack, millions of lives are being saved and a world of happiness ensured.

When Pasteur injected his dead cultures of the microbe of chicken cholera he started nature's physiological factory of antibodies which protected against the deadly living germs of that disease. This was prophylactic or preventive treatment; in other words, vaccination.

After the body became invaded by the living germs it was too late to vaccinate. The war is on. The fighting power of nature is unprepared. She has no trenches, no breast works, no stores of ammunition. Before she can get ready the battle is lost.

About 1890, a German army surgeon named Emil Von Behring, carried Pasteur's discoveries farther. It occurred to him that, if Pasteur's toxins injected into the blood started nature's factory to building stores of ammunition, why not manufacture these stores in advance in the blood of lower animals that are susceptible to the disease and have them ready when the first war cry of the enemy was sounded? Why not have "canned" antibodies? This led him to the production of antitoxin in the blood of the horse; in other words, antibodies, which promptly kill the deadly germ of diphtheria in our little ones' bodies. Note the difference in Pasteur's prevention and Behring's cure. It is the difference between vaccination with toxins of a disease which prevent it, and the destruction of that disease by antitoxin created by the vaccination. This is ideal. It prevents and cures. Don't you think this is real science? Don't you think the workers and thinkers who gave mankind this boon have bestowed the

greatest blessing in the world? Too bad that the public cannot distinguish them from grafters and fakers. In this connection I am reminded of two quotations which appeared in *Hygeia*, April, 1924, which are in line with the motive that prompted the preparation of this paper. So *apropos* to my purpose are those paragraphs that I cannot resist the temptation to present them here. One is the utterance of the president of the North Texas Medical Association, undoubtedly a district organization like this, in his opening address at a recent meeting in Fort Worth. The other is the language of William Buchan, Fellow of the Royal College of Physicians, Edinburgh, Scotland, 142 years ago. Our Texas confrere urges now, before an organization of doctors, like we have assembled here today, exactly the advice our Scotch forebear gave in 1783. I believe they are right and hope that in another century and one-half their wisdom will be verified. Meetings like this offer the opportunity for their promulgation. I wish some disciple of Asculapias, at each of our annual meetings, would present some achievement of scientific medicine to the public which has proven a blessing to humanity. This should be done at an open dinner meeting to which the members should invite lay friends, men and women who would appreciate the courtesy and help them educate the public. If our business clubs; the Rotarians, Kiwanians and Lions, can put on weekly dinners and secure so nearly a hundred per cent attendance with their eats, music and talks, there is no reason comprehensible to me why a coterie of doctors cannot pull off a similar stunt once a year because life and health are worth more than dollars. But, I almost forgot my quotations.

Under the caption, "Physicians must teach the public," our Texas brother delivers himself of the following edict: "Many diseases, formerly dreaded, have been rendered harmless through the advancement of medical science. Smallpox, diphtheria, rabies, yellow fever, hookworm and malaria, social diseases, typhoid and appendicitis, granulated lids, lockjaw, pellagra and other diseases, have become controllable and in many cases ills now result only from neglect. Cancer, tuberculosis, meningitis, diabetes and many other maladies are yielding to the victorious forces of scientific medicine. To perform our duty to the public we physicians must

engage in the work of popular education. It may seem revolutionary to propose to the medical profession, which through the ages has relied on its self-sufficiency and modestly refrained from publicity, to depart from that practice now, but let me remind you that this is an age of progress and of change. We are in the age of publicity. The popular mind is emerging from ages of ignorance and superstition and is grasping for truth. Let us assume the offensive with science as our shield and truth as our weapon."

Looking backward nearly 150 years our fraternal, Scotch predecessor, named above, who worked and worried over the same problems that often keep us awake nights or give us bad dreams, relieved his mind in the following paragraph:

"No laws will ever be able to prevent quackery, while the people believe that the quack is as honest a man, and as well qualified, as the physician. A very small degree of medical knowledge, however, would be sufficient to break this spell; and nothing else can effectually undeceive them. It is the ignorance and credulity of the multitude, with regard to medicine, which render them such an easy prey to every one who has the hardiness to attack them on this quarter. Nor can the evil be remedied by any other means but making them wiser. The most effective way to destroy quackery in any art or science is to diffuse the knowledge of it among mankind."

That learned medical scientist to whom the American medical profession owes so much and should delight to honor, Dr. Victor C. Vaughan of Ann Arbor, Michigan, at the close of his tribute to Pasteur, referred to above, coins the following two sentences: "As a scientist I fear the near future of the race is by no means certain. False prophets were never more numerous, and credulity among the masses was never more evident."

THE HEALTH CONFERENCE AT URBANA

LENA K. SADLER, M. D.,

Chairman of Child Welfare, Illinois Federation of Women's Clubs,

CHICAGO

A health conference was held at Urbana, Illinois, November 12 and 13, at the University of Illinois, under the auspices of the Illinois Federation of Women's Clubs, and the Illinois State Medical Society.

The Illinois Federation of Women's Clubs, as

most of you know, is an organization of 70,000 women, whose activities reach from Chicago to Cairo, and from Quincy to Danville. There are nearly 700 organized clubs in the Federation and from many of these clubs delegates came to this first health conference.

The Illinois State Medical Society, comprising some 8,000 medical men and women, through its lay education committee, is actively cooperating with the Illinois Federation of Women's Clubs for a constructive health program throughout the state. Social agencies, such as the Illinois Society for the Prevention of Blindness, the American Red Cross, the Illinois Children's Home and Aid Society, the Illinois Association of Graduate Nurses, and the State Department of Health, are all actively cooperating with these two great organizations in this health campaign.

The departments of public health and child welfare have undertaken, with these cooperating agencies, a program to bring definite health knowledge to expectant mothers, and to those interested in infant welfare and the pre-school child, as well as to the school child. All health instruction at this conference was given by qualified medical men and women.

Club women from all over the state registered for the conference held in Morrow Hall of the University of Illinois, which was presided over by Mrs. George Thomas Palmer, president of the Illinois Federation of Women's Clubs. After the address of welcome by Dean K. C. Babcock of the University, and by Dr. C. B. Johnson, vice president of the Champaign County Medical Society, Dr. L. C. Taylor, president of the Illinois State Medical Society, responded. Dr. Taylor graciously remained as an observer and interested listener throughout the entire two days' session.

A very comprehensive community analysis—a typewritten copy of which was placed in the hands of the delegates—was presented by Mr. Joseph W. Becker, executive secretary of the Illinois Tuberculosis Association. This analytical survey of the resources of the community showed clearly to each club woman the opportunities for community team work, in a constructive program for social welfare in their districts.

Dr. George Thomas Palmer of Springfield made the delegates really see their state of Illinois, by illuminating facts and illustrative statistics concerning health, which forced their way home in a not to be forgotten manner.

The afternoon session of the first day was devoted to child welfare.

Dr. Effa V. Davis, of the Chicago Maternity Hospital, stressed prenatal care, and enabled the delegates to take back to their districts definite knowledge concerning care for the expectant mother, the necessity of her employing her physician early in her experience, the need for the careful analysis of urine, the necessity for the observation of blood pressure and the symptoms of toxemia, that the annual maternity death rate may be lowered.

Practical suggestions were given regarding the care of infants by Dr. Isaac A. Abt, professor of pediatrics, Northwestern University Medical College. He told the club delegates that the great annual loss of 10,000 and more babies in Illinois was due chiefly to neglect, ignorance, infection, etc., and emphasized their duty in their community to further the work of their local health projects.

The management of the young child, the teaching of self control, the careful investigation as to the presence of adenoids and diseased tonsils, early recognition of heart disorders, as well as protective measures against childhood diseases, were clearly disclosed by president-elect of the Illinois Medical Society, Dr. Jacob C. Krafft, and by the President of the Chicago Pediatric Society, Dr. H. W. Cheney.

Carefully prepared statistics were presented to the conference by Dr. Edith Lowry, from the Department of Child Hygiene, Springfield, showing the infant death rate throughout the state by counties. It was found that in many counties there was abundant need of just such help as this conference afforded, and every delegate saw the great opportunity with their conferees in their various counties to help the department in its efforts to get educational literature into the hands of expectant mothers and mothers of young children.

Comprehensive instruction regarding the school child; the need for physical training for development rather than for competition, was presented by Dr. G. G. Deaver, of the Y. M. C. A. College.

The forenoon of the second day was devoted to public health. In this session communicable diseases, their problems and the part club women may occupy in the projects for better sanitation, etc., was presented by Dr. J. J. McShane, di-

rector, Division of Communicable Diseases, State Board of Health, and Dr. J. W. Pettit, Ottawa, president of the Illinois Tuberculosis Association.

Addresses on diseases of middle age and the need for an annual health audit were given by Dr. Jas. H. Hutton, chairman of the Lay Education Committee of the Illinois State Medical Society, and Dr. Leroy P. Kuhn, of the Society for the Promotion of Periodic Health Examinations. It was shown that there was a needless death rate not only among infants and mothers in an expectant condition, but throughout the adult population of the state there are needless deaths due to heart disease, kidney disorders, high blood pressure, etc., many of which could be prevented by the annual check-up. Someone suggested that the time would probably come when a coroner's inquest would be called in case of the death of a citizen under fifty. So great is the untimely death rate of our adult citizenship under fifty years of age that the only safe policy for every man and woman to pursue who is over twenty-five or thirty is to have an annual medical inspection.

In this country we have learned how to take care of our teeth, and the excellent condition of the mouth in the case of the average American citizen, as compared with Europeans, is eloquent testimony in favor of dental prophylaxis. Now, why can't we get this same idea in connection with our general health? Why should we wait for some physical catastrophe to overtake us before we send for the doctor? We preach that prevention is better than cure, but we have not been practicing it consistently. The time has come for doctors, on the one hand, to give serious attention to the examination of all well persons who apply to them for counsel. Whereas, every effort should be made to educate the American people to the point where they will go, one and all, to see a physician once a year to have such simple tests made as blood examination, urine analysis, and blood pressure observation, and any other points that may be in need of attention. The thoroughness of the examination, of course, will depend much on the age and general condition of the patient, but at least these tests which are so essential to the detection of the presence of those insidious diseases of old age should be made. Most of these degenerative or old age disorders that are associated with high

blood pressure are largely *symptomless*. They creep upon their victims so gradually that the individual is unaware of his danger; but the examination of urine and blood pressure tests would serve to show the early presence of these disorders.

Mental hygiene was presented to the delegates by Dr. Wm. S. Sadler, and they were urged to take back to their clubs the great need of the day which is to recognize the necessity for the prevention of the nervous breakdowns and emotional blow-ups of adult life. It was urged that this work of prevention must begin in the cradle where a small child should be taught self-control and taught how to direct its emotions. It was shown that what we most need at the present time is to teach these people who indulge in emotional sprees and who suffer from chronic worry and anxiety, how to enjoy natural and wholesome emotional elimination by means of work, play, relaxation and their social life.

The last afternoon was devoted to a symposium on community health from the social standpoint, and the following cooperating organizations took part:

Miss Marion Campbell, Secretary Society for the Prevention of Blindness.

Miss Mary Murphy, Secretary Elizabeth McCormick Memorial, Chicago.

Miss Caroline Manger, American Red Cross.

Illinois Children's Home and Aid Society, Mr. C. V. Williams.

Illinois Association of Graduate Nurses, Miss Mabel Dunlop.

The Anti-cigarette League, Mr. Farfield.

The club women were impressed by the arguments that Dr. Thomas Parran, of the U. S. Public Health Service, presented to show the need for a full-time health officer in the various counties throughout the state. He made it clear that the foundation for future health work lay in the counties' possession of a full time health officer who should be a duly qualified physician, possessing the requisite knowledge to undertake county sanitation and matters pertaining thereto. Dr. John C. Dallenbach of Champaign discussed Dr. Parran's talk from the point of view of organized medicine.

Miss Carroll Keller, director of Lay Education for the Illinois State Medical Society, told the delegates of the willingness of the Illinois State Medical Society to work with the Illinois

Federation of Women's Clubs in a constructive health program in the state.

The two days' conference came to a close. It was the first ever held by the Illinois Federated Clubs devoted definitely to child welfare and public health, and from the expressions of satisfaction by the delegates present, it probably means the beginning of a far-reaching program.

Child health is the state's wealth. We may lay good roads, we may build schools and churches, we may promote business, we may raise good crops, but is there a more important task that club women can possibly undertake—is there a greater job for any clubs than to enlist their interest and devote a part of their time to helping the community unit comprising the local health department, their local medical society and all other cooperating organizations in lessening the death rate among expectant mothers, infants and children?

The State Chairman of Child Welfare of the Illinois Federation of Women's Clubs urges the 70,000 club women in Illinois to arouse themselves and enlist their efforts in promoting every agency in the state which is engaged in cutting down the death rate of the state's greatest asset—human lives.

532 Diversey Pkwy.

THE ETIOLOGICAL TREATMENT OF STRABISMUS*

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CHICAGO

All cases of strabismus are organic in their ultimate etiology, whether they are refractive, neurotic or muscular in their proximal causation.

From the standpoint of *treatment*, however, they may be divided into two major groups: 1, the functional and 2, the organic.

The functional cases are those in which normal muscles act abnormally because of abnormal nerve impulse.

The organic cases are those due to an inequality in the relative length, strength or leverage of antagonistic pairs of muscles.

That there are many borderline cases is true, cases in which the muscular, accommodative and neurotic factors are intermingled in various—and at times varying quantities.

And further, all functional squints tend to

*Read before Section on Eye, Ear, Nose and Throat, Illinois State Medical Society, Springfield, May 7, 1924.

become organic as time passes, through contraction of the one muscle and attenuation of its antagonist.

The first point in the treatment of strabismus, therefore, is an exact differential diagnosis in each and every case. A careful determining of the casual factors present, and the relative and absolute value of each.

In many instances the untoward results that have occurred from operative treatment in the past have been due to the lack of such a differential diagnosis in the individual case.

With our present knowledge of the subject and the diagnostic means at hand, an exact differential diagnosis is possible in almost every case, and there is but a little excuse for empiricism in the surgical measures employed.

Differential diagnosis, here as elsewhere, is often a process of elimination. That some one casual factor may stand out prominently in a given case should be no excuse for overlooking or ignoring other possible factors, which may or may not be present. Correct findings demand a careful examination.

Then, too, the surgeon should have no time bogey. More than one sitting is usually required, for the most willing patient soon becomes fatigued under a long continued testing, and the most intelligent may give contradictory findings under the influence of fatigue, while the younger and less responsible soon cease to co-operate in the diagnostic efforts.

As the etiology of strabismus admits of two major divisions—so there are two major means of differential diagnosis, 1, the cycloplegic and 2, the tropometer.

The cycloplegic gives definite information as to the presence and the importance of the accommodative factor. The tropometer measures the scope and smoothness of the action of each of the four recti muscles individually, and gives definite information as the presence, character and amount of any defect in the action of each.

This data obtained, the accommodative and muscular factors known, there remains only the neurotic factor, regarding which there are several hypotheses but little definite information. We arrive at the neurotic factor, therefore, by an elimination of the two more tangible factors.

Under complete cycloplegia the value of the accommodative factor is determined with a reliable degree of accuracy. It is evident that this is

especially true in the younger patients, where visual habits and secondary muscular changes have not had time to occur.

The changes occurring in the accommodative squint under cycloplegia shows both the character and the importance of the accommodative factor, that due to accommodative excess becomes characteristically less pronounced and may disappear entirely; while that due to accommodative insufficiency is proportionally exaggerated. That this diagnostic phase is suggestive rather than conclusive is self-evident—the real estimation and elimination of the accommodative factor can be accomplished only by the use of correcting lenses supplemented if need be by a thorough trial of gymnastic measures over a specific period of time.

That the error of refraction bears a close relation to the degree of accommodative excess or deficiency is often true—that it bears no such relation whatever is not infrequently discovered. Just why this close association occurs in one case and absent in another has not been fully explained. And for our present needs it is not imperative that it should be.

Given a case in which the accommodative factor is present or suspected—the primal indication for treatment is to take definite means to eliminate it. The continuous wearing of properly fitted lenses changed at intervals as needed, usually produces the result.

The diagnostic value of the tropometer in strabismus can scarcely be over-estimated. A careful use of this instrument will furnish exact data as to the action of each individual rectus muscle. It gives the scope and steadiness of its action and the alacrity of its response.

If the action of a muscle is defective the tropometer determines the character of the defect and definitely measures its degree. These findings are absolute for the muscle under test and relative as regards its antagonist.

As emmetropia may be indicated by a visual acuity of 20:20 without accommodative effect; so a normal muscle balance is indicated by the ratio of 50:50. Any deviation from this ratio of 50:50 is considered abnormal and the character and amount of the deviation are taken as indicating the character and amount of the correction required. For example: A ratio of 50:50 being normal, a ratio of 50:70 would show an excess of 20 points in one of the muscles, a

ratio of 50:30 would show a corresponding deficiency in the muscle at fault, while a ratio of 70:30 would show an excess in one muscle and a deficiency in its antagonist.

That the numerical ratio 50:50 is arbitrary is readily admitted—for not all patients possess an ocular motility of that range. A normal individual may show a range of 45:45; or 40:40, or even 60:60. The number of degrees of motion is inconsequential so long as the ratio of 50:50 is present and maintained.

Our diagnostic measures established and their findings noted the matter of treatment becomes relatively simple in theory and, allowing for idiosyncrasy in the occasional patient, treatment so based is successful to a very satisfactory degree.

This treatment will be as follows:

1. *The neurotic squints:*
 - (a) A commendable use of discretion.
 - (b) The correction of the error of refraction.
 - (c) General measures—preferably outlined and administered by the family physician.
 - (d) The use of the prisms or gymnastic exercises carefully selected and definitely supervised.
2. *The accommodative squints:*
 - (a) The continued use of correcting lenses.
 - (b) Frequent re-examination as the growth and development of the patient may suggest.
 - (c) Ocular hygiene.
3. *The muscular squints:*
 - (a) Careful correction of the refractive error to be worn continuously, or at least until the *absence* of the accommodative factor is established.
 - (b) Careful estimation of the action of each horizontal rectus—repeated at different sittings until an average reading for each muscle is secured.
 - (c) Operative measures preformed under general anesthesia.
 - (d) Removal of the conjunctival sutures in one week and the muscle sutures in two weeks.

What of the operative measures:

- (a) The lessening of the leverage of a muscle showing excess by a complete tenotomy—the gap bridged by stay sutures.
- (b) The shortening of a muscle showing efficiency by tucking the tendon of the muscle.
- (c) The amount in each instance being 1.50 m.m. for each 5° of defect up to 20° and 1 m.m. for each subsequent 5°.

The assertion that all squints are due to an undeveloped fusion center is merely an hypothesis, not a demonstrable fact.

That a defective fusion center may have much to do with the neurotic cases, is probably true, That it has nothing whatever to do with the

truly muscular cases is easily demonstrated by use of the tropometer.

The tropometer is a monocular test. There is nothing for the patient to look at and, therefore, there is no demand upon either the accommodation of the fusion impulse. The tropometer gives positive data as to the strength, alertness and endurance of the single rectus muscle under test. The observer can see the eye move and can study its motion, and there is nothing hypothetical about it.

The fact that squinters do not suffer from diplopia proves nothing for the fusion impulse is facultative as most users of the microscope or ophthalmoscope know.

That strabismus may be absent in high hyperopia shows that a disassociation of the co-ordination between accommodation and convergence may exist, perhaps due to some special control exerted by the fusion center. However, in these cases the tropometer always shows an equality in the strength, alertness and endurance between the opposing recti muscles.

On the other hand a tangible muscle defect is always present in those cases of strabismus occurring with low degrees of refraction, and in all cases which do not disappear under correcting lenses. This defect is definitely shown by the tropometer before operation and is generally demonstrable at the operation as a relative or absolute inequality in the length, size or leverage between the opposing recti.

The muscular cause will not account for every case, but is present as a tangible, and demonstrable factor in a large percentage of cases—to be seen and measured by all who will.

CASE OF OVARIAN FIBROID WITH THRICE-TWISTED PEDICLE

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Ovarian fibromata, while not exceptionally rare tumors, are still sufficiently infrequent to make cases interesting. According to Hellman,¹ fibromata constitute 2 per cent of all ovarian tumors, but Hoon² found that of 4,175 ovarian tumors observed in the Mayo Clinic, 149 were microscopically fibromata, *i. e.*, 3.5 per cent., and of these 55 were unassociated with any other pathological condition. In 1902 Peterson,³ from

a survey of the general literature, collected 82 histologically proved fibromata of the ovary, to which he added two personal cases. Hellman found only six cases of fibroma of the ovary in a ten-year collection of 4,500 pathological specimens in the Charity Hospital, Berlin.

The relative frequency of fibromata of the uterus and of the ovary is strikingly seen from Kelly and Cullen's⁴ findings; these authors observed only three fibromata of the ovary in a series of 934 cases of myomata of the uterus.

Fibrosis of the ovary may occur at any age, though it is more usual at the time of the menopause, from the fortieth to fiftieth year. The youngest patient appears to have been Eden and Lockyer's,⁵ who was twelve years old. MacDonald⁶ reported a patient fourteen years old. In seven of Peterson's cases the patient was under twenty years. The oldest patient was McCann's,⁷ seventy-three years old. In Hoon's fifty-five cases, twenty-six of the patients were still menstruating, three were at the menopause, and twenty-six had passed it. As a general rule, menstruation does not seem to be affected by fibrosis of the ovary; although Peterson found that the menopause was somewhat delayed. Fibroma occurs much more frequently in married than in unmarried women.

In type, fibroma of the ovary may be either diffuse or pediculated. A part of the ovarian tissue may remain in the tumor or it may be entirely absent. In the great majority of cases the pedicle of the tumor is constituted from the Fallopian tube or the broad or ovarian ligaments. The tumor is usually solid, but may, under circumstances, soften and degenerate, especially if the pedicle (when pediculated) becomes twisted. Cystic degeneration was noted in 26 per cent. of Peterson's eighty-four cases. Fatty, myxomatous, hyaline, hydropic or calcareous degeneration may be observed in these tumors.

In structure, fibroma of the ovary is less cellular than sarcoma, from which at times it is difficult to differentiate. Besides, the fibroma shows a more regular arrangement of cells, absence of mitosis and of cells of embryonic type. Hellman says that to call a given ovarian tumor a fibroma there must be a definite regularity of the individual fibrous or muscular cells and strands, despite all other irregularities. The fibers are as a rule short and spindle-shaped; the nucleus is slightly bent or pointed, and the protoplasm

only slightly surrounds the nucleus. Meigs⁸ reported a case of fibroma and fibro-sarcoma occurring in the same tumor. Sarcoma of the ovary is much more common than fibroma.

In size, fibroma of the ovary may vary from that of a small bean to the size of an adult's head. The largest tumor observed in Hoon's series measured 35x23x15 cms. and weighed 6,023 gr. Owen's⁹ fibroma weighed 19½ pounds. Clark and Gabe state that Simpson reported a fibroma of the ovary weighing fifty-six pounds. LeMoniet reported an ovarian fibroma weighing 12½ kilos, and microscopically verified.⁴²

The origin of fibroma of the ovary is a matter on which there is still considerable doubt. Hellman states that Scanzoni,¹⁰ Rokitansky,¹¹ Schauta¹² and others considered that ovarian fibroma originated from the corpus luteum; Virchow¹³ and Olshausen¹⁴ attribute fibroma to an inflammatory origin; others consider fibrosis due to hemorrhagic effusions in the ovary. Hellman remarks that connective tissue is found in many ovarian structures, and that inflammation, hemorrhage or any other abnormal phenomenon may cause undue increase and changes in this tissue.

Fibromata, like other solid tumors of the ovary, may show no particular clinical symptoms unless there is some complication. Fibromata are usually unilateral, firm or hard, mobile, non-fluctuating, pelvic tumors accompanied by ascites in a certain proportion of cases. Peterson considered that ascites was present in about one-third of the cases collected by him. He mentions one case in which the patient was tapped sixty-five times in four years, each tapping averaging twelve liters. In Owen's case the first paracentesis drew seven and one-half gallons. Hellman states that about 25 per cent. of ovarian fibromata are accompanied by ascites. The ascites is ascribed by different authors to mechanical irritation, to hyperemia, or to a secretion of the degenerating tumor. Some consider that when ascites is present it is a differentiating symptom, as it does not usually accompany other ovarian growths or uterine fibromata. In the absence of ascites differentiation of fibroma from other adnexial tumors is difficult.

Although fibroma may be softened internally by degeneration, externally it may be as hard as bone. In some cases, however, fibromata have been composed of a loosely woven network of

connective tissue. Growth is usually slow and the tumor may develop for many years and attain a large size before the patient becomes aware of its presence.

The general clinical development of these solid tumors of the ovary is less intense than that of cystic tumors. In the latter there is always the possibility of vast distension with possible rup-

fibroma with a pedicle twisted three times, the particulars of which are as follows:

American Hospital Case, No. 21248.

Miss P., aged 21 years, stenographer, white, entered the hospital July 17, 1924, for observation.

Family and personal history: No familial antecedents of consequence. Patient has had some of the usual diseases of childhood and her tonsils were removed in 1920. Menstruation was regular and normal in amount until quite recently, but usually painful at onset. Present illness began a year ago with pains and soreness radiating to umbilicus and in right lower abdomen. No nausea, vomiting nor belching of gas, and only very slight constipation. A mass had been felt in the abdomen for the past year.

Examination: Head and thorax normal; abdomen sensitive on palpation, especially at lower right side; muscles on right side rigid. Large, hard, round, non-fluctuating mass felt in midline, anterior to and independent of uterus. Bloody discharge from vagina. Rectal examination revealed a tumor mass smooth in outline, antero-lateral in position. Blood examination: Hemo. 70 per cent, coagulation time, 5 minutes, white b. c. 11,400. The urine did not reveal anything abnormal. Blood pressure, s. 120, d. 78, pulse pr. 42.

Clinical Diagnosis: Tumor of abdomen, probably of right ovary.

Operation: On opening the abdomen through a transrectal longitudinal incision on the right side, under scopolamine morphin anesthesia, supplemented by ether, a large tumor was found, which on inspection appeared to be a pedunculated cystoma of the right ovary. The pedicle was twisted on its axis three times from left to right, and was apparently formed principally from the elongated right tube. There was some peritoneal inflammation. After ligature of the pedicle beyond the twist the tumor mass was removed without much difficulty. The abdomen was closed in layers in the usual manner, and the patient made a good recovery.

Microscopic examination of the removed tumor showed that its surface was generally smooth, though nodular in places; it was about the size of a child's head, solid, and of hard consistency. (Fig. 1.) On section the tumor was found to be composed of interlacing connective tissue containing a small amount of un-striped muscle fibers. The tumor was only slightly vascular and contained but few giant cells. (Fig. 2.) Microscopically the tumor mass displayed the appearance of a typical fibroma. The cells were spindle-shaped, having a characteristic fibrous structure. Close scrutiny of a great many sections failed to reveal any traces of malignancy. In other words, the entire structure of the tumor, from a very careful study of the component parts, was found to be purely benign in character. *Anatomo-pathological diagnosis:* Fibroma ovarii dextri with pedicle twisted three times left to right. (See Figs. 3 and 4.)

Without being exhaustive, a research made of the literature has revealed reports of twenty-five



Fig. 1. Gross appearance of tumor after removal. Note pedicle twisted three times.

ture, and there is further a greater liability to infection than in the case of solid tumors.

In the case of a pediculated solid tumor there is, however, always the possibility of the pedicle becoming twisted on its axis, leading to serious complications, peritonitis, necrosis, etc. In Peterson's series of eighty-four cases he found a twisted pedicle reported in nine (10 per cent.). In one of these cases the pedicle was twisted five times. In Hoon's series of fifty-five cases a pedicle was found twisted in two, causing severe pain and shock.

Recently I operated on a case of ovarian

cases of fibroma and four cases of fibromata of the ovary with twisted pedicle; in the great majority of the latter cases the nature of the tumor has been verified by histological examination. Short histories of these cases are appended.

Operated Cases of Fibroma of Ovary with Twisted Pedicle

*Martin:*¹⁵ Of ten cases of fibroma of the ovary reported by Martin, four had twisted pedicles.

*Van Buren:*¹⁶ Case 1. Woman 21 years of age. Fibrous tumor of left ovary with pedicle twice twisted. Clinical report only. Case 2. Woman of 29 years.



Fig. 2. Tumor divided into two parts, showing general disposition of fibrous elements.

Torsion of pedicle of fibroma of right ovary. Peritonitis and death. Autopsy finding.

*Klob:*¹⁷ Woman, 58 years. Fibroma of right ovary with pedicle twisted one and a half turns.

*Veit:*¹⁸ Woman, 40 years. Fibroid of right ovary size of an adult's head. Ascites and symptoms of acute peritonitis. Pedicle twisted once right to left. Tumor histologically verified.

*Dannien:*¹⁹ Woman, 42 years. Cavernous fibroma of left ovary. Adhesions; symptoms of peritonitis after violent effort. Pedicle twisted once from left to right. Tumor 22x18 cms., weight 1050 gr., histologically verified.

*Henricius:*²⁰ Woman, 33 years. Left ovarian fibroma, size of child's head, with pedicle twisted 180 deg. Very extensive adhesions. Histologically verified.

*Dubar:*²¹ Woman, 42 years. Fibroma of right ovary

with twisted pedicle and symptoms of peritonitis.

*Delegrange:*²² Woman, 35 years. Histologically verified fibromyoma of right ovary with pedicle twisted four turns. Weight of tumor 3 kilos.

*Loehlein:*²³ Woman, 40 years. Fibroma of right ovary with pedicle twisted four turns. No mention of histological examination.

*Michael:*²⁴ Woman, 22 years. Fibromyoma of right ovary, size of child's head, with twisted pedicle. Adhesions and intense peritonitis. No mention of histological examination.

*Douroux:*²⁵ Woman, 43 years. In left ovary large dermoid cyst; right ovary replaced by large fibroma, the pedicle of which was twisted right to left. Histologically verified.

*Jayle and Bender:*²⁶ Woman, 43 years. Fibromyoma of right ovary size of a child's head; adhesions and symptoms of peritonitis. Pedicle twisted one and a half turns. Ascites; tumor weighed 1250 gr. and was histologically verified.

*Bender and Heitz:*²⁷ Histologically verified fibromyomata of both ovaries. That of the left ovary had a pedicle twisted once on its axis and the tumor was as large as a child's head.

*Emmet:*²⁸ Woman, 44 years. Ovarian fibroid, the size of a full term fetal head, with pedicle twisted twice. Adhesions. Clinical and operative diagnosis only.

*Peterson:*²⁹ Woman, 53 years. Histologically verified fibroma of ovary. Pedicle 7 cms. long, twisted twice right to left. Ascites.

*Routier:*³⁰ Woman, 50. Fibroma of right ovary, size of adult's head; long pedicle with three twists. Ascites. No histological examination mentioned.

*Bastian:*³¹ Woman, 46 years. Fibroma of left ovary with pedicle twisted 360 deg. from left to right; symptoms of peritonitis. Histologically verified.

*Scharlieb:*³² Woman, 61 years. Fibroma of left ovary with pedicle twisted two and one-half turns to left. Size of tumor nineteen inches x 15 inches. Histologically verified.

*Goffe:*³³ Woman, 35 years. Fibroma of right ovary with pedicle twisted one and a half turns. Histologically verified.

*Oliva:*³⁴ Case of histologically verified pure fibroma of right ovary, size of adult's head, with torsion of pedicle two turns to right.

*Lop:*³⁵ Woman, 26 years. Fibroma of right ovary slightly twisted on its pedicle and descended into Douglas' sac. Histologically pure fibroma.

*Friedmann:*³⁶ Girl 19 years of age. Fibroid of right ovary with pedicle twisted one and a half turns. Size of tumor 22x14x12 cms. Histologically verified.

*Deveze:*³⁷ Woman, 63 years. Histologically verified pure fibroma of left ovary with strongly ecchymotic pedicle twisted three turns. Tumor weight 1800 gr.

*Bender:*³⁸ Woman, 40 years. Ovarian fibroma size of adult's head, with pedicle twisted one and a half turns. Torsion apparently occurred very slowly as there were no clinically appreciable symptoms.

*Boldt:*³⁹ Woman, 42 years. Semi-solid fibroma of ovary with pedicle twisted two and a half turns.

There was also carcinoma of cervix uteri. The patient died of shock two days after hysterectomy. No histological examination mentioned.

Different theories have been advanced to explain the mechanical causes of torsion of ovarian

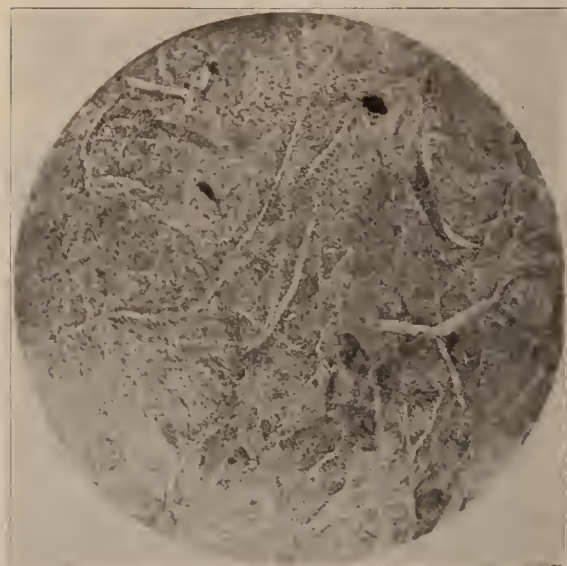


Fig. 3 Microscopic appearance of tumor enlarged 50 diameters.

tumors in general. As regards intrinsic causes arising from the tumor itself the most generally accepted theory is that known as Freund's law,⁴⁰ i. e., that when a tumor develops in such a way that it tends to become abdominal rather than pelvic, it at the same time tends to twist on its axis; further, that tumors situated at the right side ordinarily twist from right to left and tumors on the left side tend to twist from left to right. This law apparently has many exceptions.

Jolly⁴¹ thinks that when a tumor increases in growth laterally it comes in contact with the abdominal wall at that side and that this plays a part in the torsion when adhesions occur and render the tumor itself immobile. Olhausen thinks that a long thin pedicle predisposes to torsion, yet in many cases of torsion the pedicle is short and thick.

In regard to extrinsic causes, torsion appears, at least in some cases, to have followed a sudden sharp movement of the body or change of position, a violent effort or external blow.

The pathological phenomena following torsion in solid ovarian tumors are not so intense as in cystic tumors. Edema, hemorrhage and central necrosis due to interference with blood supply,

may vary considerably in intensity. Jayle and Bender²⁶ think that in some cases the twist may be latent; the circulation is not disturbed nor does the parenchyma of the tumor undergo any change. But in other cases circulatory disturbances are very marked, the tumor becomes softened at its center, and cystic necrosis sets in rapidly.

In regard to treatment, the possibility of degeneration of a benign solid tumor of the ovary as well as its liability to become twisted on its pedicle, if pediculated, are reasons which justify surgical removal, even in the absence of serious symptoms. The type of operation depends upon whether one or both ovaries are affected. Both ovaries were involved in six of Peterson's eighty-four cases, and in two of Hoon's fifty-five cases. In such case the advisability of utero-adnexial castration must be seriously considered, as there is no object in preserving the uterus when both adnexæ are removed. If only one ovary is affected and the second ovary is healthy, unilateral adnexectomy should be the operation of choice in a woman within the age of genital activity.

The diagnosis of torsion is generally possible from the symptomatology arising therefrom,

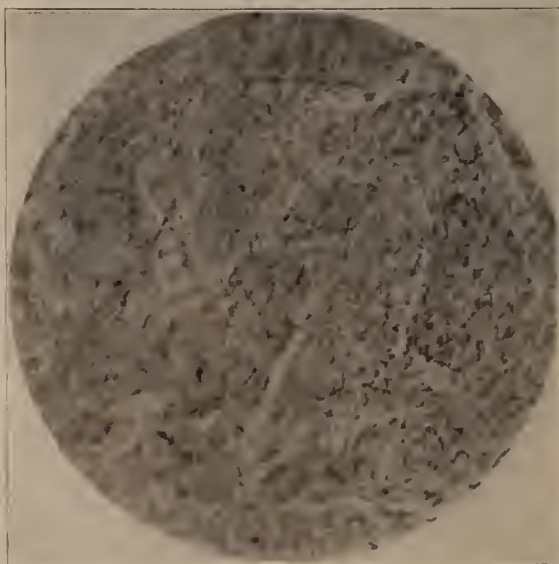


Fig. 4. Microscopic appearance of tumor, 4 x 4, enlarged 253 diameters.

when the existence of an ovarian tumor is manifest from the history and examination. The surgical treatment of a solid tumor of the ovary with twisted pedicle is the same as if this complication were not present, the only difference

being that in this case operation cannot be delayed. Oliva³⁴ thinks that with a twisted pedicle operation should only be carried out in the acute stage (warm stage) when the patient's syndrome is grave and threatening, and there are no signs of spontaneous reduction of the torsion. In cases with some tendency to spontaneous detorsion, or when complicated with intercurrent disease, to which the patient's condition may be due rather than to the torsion, a "cold" operation should be done, as it offers a better prospect of success as well as permitting a more thorough intervention than in the operation of urgency.

Prognosis after operation is good, provided malignancy is ruled out by the pathological examination. Normal menstruation and normal pregnancy do not appear to be unfavorably influenced to any marked degree by unilateral operations on the ovary.

BIBLIOGRAPHY

1. Hellman: Surg. Gynec. & Obstet., 1915, XX, 692.
2. Hoon: Surg. Gynec. & Obstet., 1923, XXXVI, 247.
3. Peterson: Amer. Gynec., 1902, I, 45.
4. Kelly & Cullen: "Myomata of the Uterus," Phila. 1909.
5. Eden & Lockyer: "Textbook on Gynecology," 1916, p. 684.
6. MacDonald: Jour. Amer. Med. Assn., LXXVIII, 1923, 1, 127.
7. McCann: Brit. Med. Jour., 1903, I, 127.
8. Meigs: Boston Med. & Surg. Jour., CLXXXVII, 1922, 1, 1211.
9. Owens: Lancet, 1923, I, 1211.
10. Scanzoni
11. Rokitsansky
12. Schauta
13. Virchow
14. Olshausen
15. Martin: "Die Krank. d. Eierstock," cited by Bastian.
16. Van Buren: N. Y. Jour. of Med., 1850, IV, 159.
17. N. Y. Jour. of Med., 1851, VI, 153.
18. Klob: "Path Anat. d. Weibl. Sexualorgane," cited by Bastian.
19. Veit: Berl. Klin. Wehnschr., 1876, XIII, 717.
20. Dannien: "Eine Ovariotomie nach Achsendrehung des Stiels bei Soliden Tumoren," Rovstok, 1877.
21. Henricius: Finska l k. Sallsk., 1892, No. 1, p. 68.
22. Dubar: Bull. Med. du Nord., 1893, XXXII, 7.
23. Delegrange: Arch. de tocol., 1893, p. 895.
24. Loehein: Deut. med. Wehnschr., 1894, Vereins-Beil., p. 87.
25. Michael: Deut. med. Wehnschr., 1895, Vereins-Beil., p. 110.
26. Douroux: Lyon med. 1902, CXIX, 648.
27. Jayle & Bender: Rev. de gynec., 1904, VIII, 419.
28. Bender & Heitz: Bull. Soc. Anat. de Paris, 1903, p. 241.
29. Emmett: Amer. Jour. Obstet., 1905, LI, 237.
30. Peterson: Physician & Surg., 1908, XXX, 97.
31. Routier: Bull. Soc. de Chir. de Paris, 1909, XXV, 1904.
32. Bastian: Rev. med. de la Suisse rom., 1908, XXVIII, 597.
33. Scharlieh: Proc. Roy. Soc. Med., London, 1910-11, IV, (Sect. Obstet. 35).
34. Goffe: Amer. Jour. Obstet., 1904, L, 105.
35. Oliva: Rasseg. d'ostetricia, 1911, XX, 149.
36. Lop: Gaz. d. hopitaux, Paris, 1911, LXXXIV, 1495.
37. Friedmann: Amer. Jour. Obst., 1911, LXIII, 143.
38. Deveze: Bull. soc. d'obstet., Paris, 1912, XV, 1004.
39. Bender: Bull. Soc. d'obstet., Paris, 1912, XV, 855.
40. Boldt: Amer. Jour. Obst., 1913, LXVIII, 100.
41. Freund: Centralbl. f. Gynack., 1892, XVI, 409.
42. Jolly: Zeitschr. f. Geburts. u. Gynaek., 1907, p. 87.
43. LeMoniet: Arch. menst. d'obstet., 1913, IV, 524.

SOME BIOLOGIC AND SOCIAL DANGERS ASSOCIATED WITH PREVENTIVE MEDICINE

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During recent years both the general public and the medical profession have become so enthusiastic over the possibilities of preventive medicine that it may seem quite presumptuous for a mere surgeon interested chiefly in the broader biologic and economic aspects of the problem to attempt to outline some of the difficulties which may possibly lie in our future path of progress. Nevertheless, no harm can come from taking a glance at some of these possible obstacles; and, as the problems involved have in them, to me at least, certain elements of interest, we will spend a few minutes in considering a few of them.

Now, I do not want to be misunderstood. No one in this audience or anywhere for that matter believes more thoroughly than I do in the fundamentally sound efforts which are being made to preserve the public health. Without such efforts our modern civilization, with its intensely congested centers of population and rapid means of communication and equally rapid means of spreading disease, would be almost, if not quite, impossible. On the other hand, you will all agree with me, I am sure, that taxes are approximately high enough. Roughly speaking, one adult out of 14 of our population is now supported at the taxpayers' expense, and when you and I work six days a week, almost one day's work is for the purpose of earning our taxes.

A not inconsiderable part of this tax increase has been levied in the name of public health. Most of this expenditure has been wise and society has so far received a fair return for the money invested. Nevertheless, we must not forget the economic law of diminishing returns. A man can purchase a certain amount of automobile transportation by investing \$500 in a Ford. Two thousand dollars spent on a Cadillac does not yield four times as much transportation, and \$10,000 spent on a Rolls Royce yields nothing like 20 times the transportation furnished by a Ford. Public health is to a certain extent purchasable, but because we obtained very striking results with relatively small expendi-

tures is no reason at all why we should expect proportional results from greatly increased expenditures. With Congress passing and many states concurring in the Shepherd-Towner Bill and a vast collection of similar welfare measures being constantly considered, I, with a naturally rather conservative and questioning attitude, fancy that here and there we are at least approaching the point of diminishing returns in some of our public health expenditures.

The really great and unquestioned triumphs of preventive medicine have come in a group of diseases caused by micro-organisms with very limited fields of activity. It would simply be a reflection on human intelligence if we should fail to make use of the knowledge we possess regarding the causes of these diseases, and I see no reason why they should not be forever practically banished from civilized communities. Among them I will mention yellow fever, malaria, typhoid fever, smallpox, Asiatic plague, typhus fever and tetanus.

In New York State the above listed diseases at the present time account for only a fraction of 1 per cent of our deaths. They can already be looked upon as permanently under control. Typhoid fever will probably always require great diligence in its control, and temporary carelessness will result in epidemics like the recent outbreak in Albany. The spectacular results obtained in the control of the above-mentioned diseases have led many to hope for and even predict similar results in the control of the great mass of common ailments. In so far as we attempt this we must not underestimate the difficulties, and it is only right that we subject every claim of success to very searching scrutiny.

The human race is ever face to face with certain greater and, I believe, immutable biologic facts or laws, as we are wont to call them. Possibly man can sidestep the action of these forces for a few years, perhaps for a decade or two, but search as I may I can find no evidence in any form whatsoever to support the assumption that man can for any appreciable period of time set aside nature's great laws governing the multiplication of the species and the survival of the fittest. If we are to make permanent and lasting progress in public health work we must, I believe, square our every effort with these great omnipresent biologic processes.

During the past 100 years mankind has done

more than in all past history to harness the forces of nature. By multiplying transportation a thousandfold, by the development of power and manufacturing methods and by improved methods of agriculture given areas can now support enormously greater populations than formerly, but nature, with her relentless laws of multiplication, is rapidly filling up the gaps as regards the world's population. A little more than a century ago, at the close of Napoleon's time, Europe had a population of approximately 160,000,000. Today, notwithstanding the World War and immense emigrations, the population of Europe is pressing the limits of sustenance with more than 400,000,000 inhabitants to support. Already in Europe we see coming into play once more the great biological laws governing the survival of the fittest.

In 1820 the area comprising the United States had a population of approximately 10,000,000. By 1920 this had increased to 105,000,000. Some of our own children will probably live to see a population of more than 200,000,000 in the United States. I mention these figures simply to show how quickly nature fills the gaps and how even though for a few years its relentlessness may be temporarily suspended, the great law of the survival of the fittest must always dominate the situation.

You and I work and save in order that we may leave something to help on our posterity. Sometimes I wonder if we should not be equally careful as regards bequeathing to our children and our children's children an over population degenerated and weakened by perpetuating breeding stock which might possibly better have perished in our time and in the middle decades of the twentieth century.

Throughout all nature, except temporarily now and then in highly civilized society, we see constantly active terrific processes of elimination. We are often inclined to look at these eliminations as calculated solely to improve the species. As a matter of fact, they are chiefly useful in preventing degeneration because the law of the survival of the fittest results in improvement in the species only when it operates over very long periods of time, whereas even a temporary suppression of the processes of the elimination of the unfit results in a rapid deterioration of the species.

Every stock raiser knows the long and tedious

processes by which, for instance, the Holsteins have been raised to their present perfection as milk producers, and he also knows how rapidly the breed would deteriorate if special efforts were made to protect and propagate the unfit in his herds. It is a cruel and unpleasant fact to contemplate, but it is nevertheless an undeniable fact that just in so far as we save the unfit we weaken the species.

As regards man, a recent writer has said, "He must play his own hand in the game of evolution. It is a desperate game. Nature plays fair, but she permits no stacked cards and she mercilessly takes her winnings. Twenty, thirty, and a hundred times in Babylon, Egypt, Greece, Rome, and elsewhere man has pushed out upon a bold play and staked all the winnings of his barbaric days upon one hazard, namely, economic and political civilization. Every time he has lost." One reason, probably the chief reason that he has always lost, is that in a state of civilization man saves his weaklings, and when he does this, he inevitably and with surprising rapidity destroys the race responsible for the civilization.

Every few days I read articles to the effect that adversity weakens individuals and races, but is this really so as regards the surviving generations? National prohibition is unquestionably one of the reasons for our present low death rate. I am myself in favor of prohibition, at least in my time. In this connection, however, let me mention some rather interesting experimental data which have recently come to light. A scientist, wishing to prove the deleterious effects of alcohol on offspring, took two sets of guinea pigs. One group he made drunk with alcohol six days a week. The other group he kept under similar conditions except as regards the alcohol. At first the experiment worked according to expectations. The prohibition guinea pigs had large litters and the young lived and multiplied. The drunken guinea pigs had small litters, many of the young were born dead and still others died in early life. All this was according to expectations and apparently strong proof in favor of doing away with the deadly alcohol. But to make proof conclusive, he continued his experiments and with about the fourth generation it was noted that the surviving progeny of the drunken guinea pigs, although few in numbers, were strong and hardy

as compared with their very much more numerous prohibition relations. By the sixth and seventh generations the alcoholic survivors were obviously a superior super-breed of guinea pigs, and even as regards surviving numbers they were rapidly catching up with the weaker prohibition strain of the species. Then this scientist began to speculate on the human race and he promptly noted that the Scotch, the Finlanders, the Swedes and Norwegians and most of the hardest and toughest races of mankind were the survivors of many generations of hard drinking ancestors. We may each of us hold different opinions regarding prohibition, but I am sure that you will all agree with me that in the old days unlimited booze was a great eliminator of the unfit.

Attacking our subject from another angle, it might be of some interest to speculate not too seriously on the ultimate results to be expected from approximately perfect preventive medicine. By this I mean such results as would come from the total abolition of the theoretically preventable infectious diseases. This condition of affairs has actually happened from time to time in isolated communities, such, for instance, as some of the South Sea Islands. The result, as far as known, has always been the same. The inhabitants have long before learned to eat their surplus population. Cannibalism is now seldom practiced in these localities. Usually we hear that the English Government, by edicts issued from Downing Street, abolished cannibalism. Is this the real truth? It is not. The common English sailor stopped the practice. He took measles and tuberculosis to the Islanders. For these apparently healthy natives who had not been immunized by countless generations of exposure to measles and tuberculosis these diseases proved from forty to possibly a thousand times more deadly than for the English sailors. Very soon there was no excess population to serve as food for the survivors and cannibalism automatically ceased.

When the South Sea Islanders, by reason of geographic factors, began to thrive in localities free from the common infectious diseases, two things happened. They instituted cannibalism and they developed races almost unbelievably susceptible to the infections to which they had not been exposed. Ordinarily, mankind is constantly surrounded and constantly harbors countless bil-

lions of micro-organisms always ready to devour the weak and unresisting. Right here today you and I, everyone of us, probably harbor a few tubercle bacilli, a few million staphylococci such as recently caused the death of Calvin Coolidge, Jr., and countless billions of other organisms capable of causing pneumonia, peritonitis and various other ailments. All that is needed to produce disease is a little disturbance of the balance of power, either a loss of the resistance on our part known as immunity, or an increase in attacking power on the part of the micro-organisms known as virulence.

The problem of the inherited and acquired immunity factors was well illustrated in our war camps. The troops raised in congested city districts had from infancy been exposed to all kinds of infectious diseases. On the other hand, the big, strapping fellows from the mountains of Tennessee and North Carolina had been isolated from most exposures. In camp the non-immune wilderness boys died of all sorts of infectious diseases which scarcely feazed the city troops.

Again, did the flu work its real havoc among the densely congested population of New York's East Side? It had ideal opportunities to spread in the tenement districts, but among this thoroughly immunized population the survivors of thousands of lesser exposures, it scarcely got a foothold. It was among the people not normally exposed to multiple contagions that the flu worked its most awful havoc, such, for instance, as in the Adirondacks and among the natives of Labrador and Alaska.

The above examples serve to illustrate two very important points. First, that a low rate of morbidity from infectious diseases among a given group is largely determined by the resistance of the group, and, second, that groups not subject to immunizing processes very rapidly become highly susceptible to infections.

This raises a very real question as to the true perspective concerning the factors responsible for the fall in death rate during recent years. Statistics leading back 60 and 70 years simply take us back to the period of the early days of railroad transportation and the development of great industrial centers. These rapid developments produced a situation not totally different from moving Kentucky mountaineers to an army camp. Gradually the unfit have been eliminated

and the survivors immunized, until within recent years the entire population has approached the infection-resisting standards of groups long accustomed to crowded living conditions. Without allowing for such factors as I have just mentioned, statistics comparing general death rates in 1870 with those in 1920 are quite worthless as proofs of the efficiency of methods of preventing disease.

Just one more example along this line. Since 1919 we have had a remarkably low death rate from pneumonia. Is this due to preventive medicine? Not at all. It is due to the fact that the weaklings as regards pneumonia were most of them killed off during the flu in 1918 and 1919.

Common measles presents a type problem of some interest. In some localities great efforts are made to prevent the so-called contagious diseases of childhood.

I was raised on the campus of one of the prairie state colleges. The students came mostly from farms and country districts. For the most part they had never been exposed to measles, scarlet fever and the other so-called diseases of childhood. In spite of the most rigid efforts at prevention on the part of the college authorities the measles epidemic was an annual occurrence, with now and then outbreaks of scarlet fever and troublesome but less serious outbreaks of other diseases. From both an economic and social viewpoint, I believe, it would have been far better for the students to have had these diseases at home during childhood. Measles at the age of 6 or 8 is not a very serious proposition, but it is a serious and costly thing for an adult, be he a college student or worker, to be knocked out for several weeks by the measles. Then also the mortality of measles in the adult is high and, too, if an individual is destined to die of the measles, it is a problem open to serious consideration whether it is better for him to die at age 6 or age 21.

Among the infectious diseases, tuberculosis is mankind's greatest enemy. There is simply no question whatsoever concerning the advisability of giving us all the greatest possible protection against this disease, but in the long run the campaign must be planned with all factors held in their proper perspective.

During the past twenty-five years the annual death rate from this disease in the United States has dropped to half its former rate. If this

were purely a local phenomenon the result might be ascribed to the enormous sums we have spent in this country in attempts at its prevention. But the decrease has been, with some exceptions, a world-wide phenomenon, and has occurred apparently irrespective of the sums spent in its eradication. This does not mean that we should lessen our efforts, but it does mean that we should be reasonably critical as regards the means we adopt. I am not at all sure that our efforts to prevent the spread of this disease by providing costly State and County Sanitariums are going to in the long run yield us full value for the money spent.

The prevention of tuberculosis by strictly isolating the active cases is based on the assumption that the spread of tuberculosis among a susceptible population can actually be prevented over an appreciable length of time. As regards yellow fever or even typhoid fever, this idea seemed correct and practical from the very first. As regards tuberculosis, let me illustrate some of the difficulties which confront us.

As a pathologist, I have performed something over 800 post-mortems. I cannot recall ever having performed a single autopsy on an adult which did not show some evidences of tuberculosis. This is in accord with all autopsy statistics from all over the civilized world. If those of us here today were to die tonight and come to autopsy tomorrow, I am sure that every one of us would show some evidences of tuberculosis. In other words, we have thus far not succumbed to tuberculosis, not because we have not been infected and not because the germs have not many times or all the time been lurking in our systems ready to overcome us at any moment, but because we have each of us individually demonstrated our ability thus far to conquer the infection.

We are the surviving fittest of countless generations that have gone before us, all constantly fighting the battle against tuberculosis. In the early decades of the 20th century economic pressure has been to some extent lifted in our country. We have plenty of food and fair housing and we work only 8 hours a day, instead of 10 to 14 as formerly. As regards tuberculosis, we are in a position to reap the benefits from all the countless ages of ruthless elimination of the unfit as regards tuberculosis that have gone before us, and we are just now reaping the

benefit. But woe be to the next generation of our sons and daughters and their children if we should bequeath to them an over-populated country consisting largely of non-immunes. Some idea of what I have in mind may be illustrated by the experiences of the English during the late war. England enrolled and sent to France some 3,000,000 English Tommies who by clinical tests were known to be infected with tuberculosis. She also from her outlying colonies collected 30,000 men who had apparently never been exposed to tuberculosis and who by clinical tests made before they reached France were found to be free from tuberculosis. Actually in a given length of time, more cases of active tuberculosis developed among the 30,000 than developed among the 3,000,000 already known to have the disease. The 30,000 were almost wiped out with acute forms of tuberculosis. As far as this experience goes it would indicate that the Englishmen who for countless generations have been constantly exposed to the disease are 100 times more resistant to the disease than individuals belonging to races that have not been so exposed. This 100 to 1 proposition illustrates one of the great fundamental facts concerning this disease.

This State and our individual counties are spending vast sums for tuberculosis sanitariums. Because I am at present in the minority I may be wrong, but I venture to prophesy that 50 years from now or about the time the bonds come due these sanitariums will be remembered as expensive experiments. Tuberculosis is a family problem. I believe fully that the final solution will be on the Home Hospital unit basis, which simply means housing the victim and his family in a reasonably wholesome environment.

The problem of the venereal disease is an important one. Gonorrhea is the most common of these diseases and is quite generally looked upon as an unmitigated curse. Not many years ago society had little sympathy for the man who contracted this disease. The medical profession, always willing to extend charity or semi-charity to deserving cases, drew the line on the young sport with gonorrhea. Even the medical student, entitled by reason of professional etiquette, to free medical care from his older professional brethren, was expected to pay his own way if he had been careless enough to get the clap. Today, with our changed ideas as to public ex-

penditures and how to use the taxpayers' money, things are very different. Nowadays, in Schenectady and in many other communities in this State, the young sport who goes out and contracts gonorrhea becomes a privileged character. He gets free treatment at a so-called health center. The cost of this treatment is now borne by the thrifty home-making man who pays taxes on his home and other property. I sometimes question the moral basis of the plan which compels the conscientious home-making thrifty man to pay the bills incurred by the thriftless, immoral one, but modern society seems to be constituted much on this basis, and it is not with this phase of the subject that I intend to deal tonight.

From one viewpoint it is a far stretch of the imagination to think of gonorrhea as playing a really important and possibly very essential part in nature's great scheme of things. I, for one, am not at all sure that we could rid this State of gonorrhea without upsetting nature's balance in such a fashion as to bring onto us curses far worse than the much despised clap.

For a few minutes let us look at gonorrhea from a rather special viewpoint. For the male this disease is a pestiferous affair, but causes little really serious disability. In the female its effects are very important because it sterilizes the great majority of its female victims. A few women bear one child after contracting gonorrhea, but many are sterilized almost from the very beginning of their infection. Is it just possible that this despised disease may fit into nature's scheme of things in a way that makes it one of the conservers of the race?

All authorities agree that about 2 per cent of our population are decidedly mentally defective. Also it is agreed that this quality of mental defectiveness is to a greater or less extent transmittable to offspring. You have all, I am sure, read arguments by eugenic enthusiasts in favor of sterilizing and segregating in institutions these mental defectives. But we have in New York State about 200,000 mental defectives of the class above referred to. To segregate them in institutions would mean for New York State alone 100 asylums of 2,000 beds each, costing about \$300,000,000 to build and about \$100,000,000 annually to maintain, to say nothing of the legal machinery necessary to search out and commit the defectives.

The asylum segregation idea for mental defectives is evidently overwhelmingly impractical, but such would be the cost of an artificial method of dealing with the problem.

Has nature been idle as regards this problem during the hundreds of thousands of years she has had it on her hands? Not at all.

As a breeder and raiser of families the male mental defective is not greatly to be feared. The pressure of economic conditions on the male is too great. Few of them are able to marry and attempt the responsibilities of raising families. On the other hand, the female defective is often physically attractive. Sexually, they are often rather over-developed. As a type they almost never tend to be old maids and ordinarily they tend to raise large families. But here is where the little micro-organism known as the gonococcus comes in to play its part. Good judgment on the part of the female requires that she abstain from sexual relations until marriage, but good judgment is not an attribute of mental defectives.

I have in my office files some 15,000 patients' histories and, being a surgeon dealing considerably with the diseases of women, I have on file the histories of a considerable number of women suffering from the complications of gonorrhea. In checking up these histories a few years ago I was surprised to find that in my experience gonorrhea had selected with a most remarkable precision as regards the female those of a mentally inferior type. Just as an occasional innocent man is convicted of a crime, so do I find in my files a very few histories of intelligent and innocent wives who have contracted gonorrhea from their husbands, but as regards fully 90 per cent of my cases, I am sure that the human race has been actually benefited by the sterilization brought about by this infection. Since then I have checked this phase of the problem statistically from data relative to prostitution, houses of correction and many other sources, and I have become quite convinced that as regards the female, gonorrhea, if not too artificially controlled, picks out and sterilizes the mental defectives with an accuracy which could never be approached by any legal machinery operable in a civilized community. Certainly I can find no evidence to convince me that the convictions for murder and other serious crimes in Schenectady and other counties of this State are consummated

with anything like the accuracy of nature as regards the sterilization by gonorrhea of mentally deficient females. I for one am quite a little inclined to believe that gonorrhea is a really important factor in conserving the human race.

In conclusion, let me emphasize the very fundamental difference existing between the efforts made by an individual to preserve his own health and the health of his offspring; and paternalistic, tax-paid efforts calculated to save the same and other individuals.

The already demonstrated possibilities of preventive medicine can either make or destroy the race. Just in so far as survival is made to depend upon the individual's efforts, then the intelligent person with the ability to comprehend and the good judgment to make proper use of the available opportunities to preserve his health will have an enormous survival advantage over the less intelligent individual. From a purely intelligence standpoint, probably no more important survival factor has influenced the life current of the human animal since the very dawn of civilization.

On the other hand, just in so far as preventive medicine becomes a State function, with its activities devoted to any considerable degree to spending the tax moneys of the intelligent and thrifty for the purpose of preserving those who otherwise could or would not preserve themselves, then preventive medicine carries with it the danger of becoming the most potent force in the world's history for preserving the unfit and thereby destroying the race.

Medical Arts Building.

INTRAVENOUS MEDICATION SIMPLIFIED

L. EDWIN BARNES, M. D.,
CHICAGO.

For the past few years I have looked to the blood and urine for the causes of many headaches after the eyes, nose and throat were taken care of. It has been my experience that two-thirds of my patients have anemia in varying degrees. These patients are greatly benefited by the intravenous administration of iron cacodylate, or iron, arsenic and phosphorus, or these with calcium iodide. Acute peritonsillar abscesses often retrogress with daily injections of sodium salicylate with sodium iodide for three or

four days. Streptococcic sore throats are cured quicker with intravenous sodium salicylates than by local and oral medication only.

One case of recurrent blastomycosis of four years' duration with pains simulating arthritis has remained cured, both clinically and symptomatically, for over six months. This patient received ten intravenous injections of one gram of sodium thiosulphate dissolved in ten c. c. of double distilled water. I could go on with many other conditions for which headaches are treated when the cause is far from the reflex pain.

Regarding technique: At first I used a rubber tourniquet and tied a slip knot; this was unsatisfactory because in loosening it the arm moved and sometimes the needle was displaced, requiring reinsertion or trouble from hypodermic medication instead of intravenous. I then tried to use some of the many kinds of tourniquets on the market, with the same dangers of displacement from arm movement. This is especially true of fat people and small veins.

Necessity being the mother of invention, I worked out *the simplest form of tourniquet possible* and had Sharp & Smith of Chicago make it for me.

Believing that many fellow Medics are desirous of a simple yet very efficient tourniquet for this kind of treatment, I have consented to allow Sharp & Smith to make the same for you. Also the *vein and skin forceps* for holding a movable skin over the vein or for stabilizing a movable large vein, which so often allows the needle to slide off, or to puncture it obliquely and sometimes tear it, allowing an ecchymosis that requires a week or two to clear up.

This *vein and skin forceps* prevents most of these troubles. See Fig. 2.

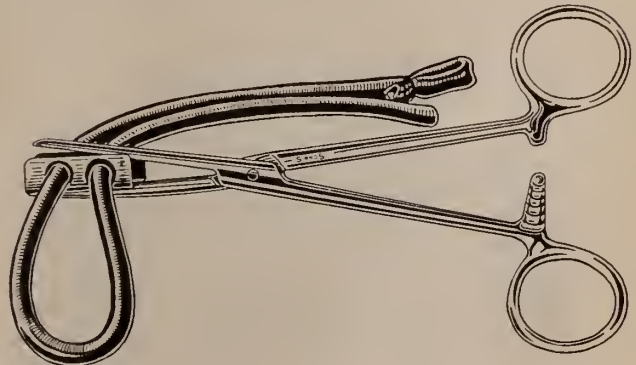


Fig. 1. Tourniquet.

The tourniquet (see Fig. 1) has a soft rubber tube fastened at one end and the other end loose. This obviates slipping it over the hand and up the arm. The technique being simpler to place



Fig. 2. Vein Forceps.

the instrument above the elbow and putting the free end about the arm and through the outer hole like a large needle's eye, pulling it up to the desired tension, then closing the instrument as easily as an artery forceps. Clean the skin about the vein of entry with alcohol, then if the skin is loose or the vein movable, hold it steady with the *vein and skin forceps* and insert your needle into the vein (No. 23 platinum is the best size; attach it to the proper glass syringe). Never inject any medicine before you can withdraw into the syringe a few drops of blood. Having the needle in and the blood evident loose the tourniquet and allow it to hang loosely on the arm until the injection is completed. Quickly withdraw needle and make firm pressure with cotton wet with alcohol for a few minutes, after which cover needle abrasion of the skin with a drop of flexible collodion.

This technique is for the doctor whose assistant is not present when he needs him or her and has to manage alone.

Name adopted is Dr. Barnes' Englewood Tourniquet, Dr. Barnes' Englewood Vein and Skin Forcep. Both especially designed for intravenous work.

PREGNANCY WITH COMPLICATIONS: VARICOSE VEINS; FACE PRESENTATION, CHIN ANTERIOR; MANUAL ROTATION; HIGH FOR- CEPS; CORD WRAPPED FOUR TIMES ABOUT THE NECK

A CASE REPORT

DANIEL H. BESSESEN, M.D.

MINNEAPOLIS, MINN.

The patient, aged 26, gravida 1 para 2, requested attention in October, 1923, a week after a slightly abnormal menstrual period. Her family, marital and past histories were negative as was also the menstrual history up to the present illness. The previous pregnancy, 6 years before, had been uneventful but at delivery she had suffered a slight laceration of both the uterus and

perineum. The perineum had been repaired at the time, but the uterus had not been treated until the May preceding her appearance. Physical examination showed markedly enlarged veins of the left vulva, right inguinal region and both lower extremities. The uterus was somewhat soft, slightly enlarged with some tenderness on the right side but nothing palpable. The vaginal wall was questionably bluish. A tentative diagnosis of pregnancy was made and the patient kept under observation. Aside from the severe aggravation of the varicosities, and a burning pain in the stomach relieved by sodium bicarbonate, the period of gestation was without special interest.

On the morning of the date expected, June 20, 1924, labor commenced and progressed until at 7:00 p. m. effacement was complete, at 9:30 dilatation was complete and at 10:00 p. m. she commenced to suffer extreme bearing down pains with bulging of the vulva. The failure of the membranes to break made rectal diagnosis of the details of the head difficult to make out and when at midnight no further progress had been made. a vaginal examination showed the position to be face presentation, chin anterior. Complete anesthesia was induced, the membranes ruptured and the head pushed up preparatory to a version. A spontaneous internal rotation occurred, after which high forceps were easily applied and the head delivered. The cord was found wrapped four times about the neck. It was clamped and sectioned and child delivered and resuscitated. The mother had no laceration. The patients left the hospital early and made an uneventful recovery.

Varicosities in pregnancy are best treated expectantly until after delivery, after which time they often disappear without further trouble. Where they continue to be troublesome, surgical removal may be performed later. When the head presents in its long diameter with the chin anterior, it is necessary to rotate the head either manually or with forceps or to execute an internal version. Unless the rotation is easily done it is safer as a rule to perform the version. However each case should be allowed the benefit of its own merits.

The application of high forceps should be made in the axis of the mother's pelvis. In this case, there was sufficient freedom to apply them to the child's head after passing the blades of the

forceps well up into the false pelvis, and with the appliance well locked, to bring the head into the axis of the pelvis before engaging.

When the cord is wrapped around the neck, it may be loosened by slipping it over the head, or over the body or by clamping, sectioning and freeing the loops as done in this case. Time is of importance owing to the stoppage of the circulation in some of these instances, and necessity of resuscitation by the hot and cold water baths and other manipulation.

THE UNTOWARD EFFECTS OF QUINIDIN*

JAMES G. CARR, M. D., CHICAGO, AND WALTER H. SPOENEMAN, M. D., ST. LOUIS

Though quinidin was practically unknown to most of us a few years ago, it is by no means a new drug. Both Wiechmann and Levy refer to the papers of Strumpell and Freudenberger, published in 1878 and 1880. At that time, in certain European clinics, quinidin was in use as an antipyretic in typhoid. The publications just mentioned warned against the danger of overdosage. Quinidin does not appear to have been widely used. By the end of the last century it was hardly more than a name, without significance for practice. It became an obsolete drug, partly because of its inferiority to quinin in the treatment of malaria and partly because of the general disuse of antipyretics in the continued fevers. Though the dangers of large doses had been pointed out, it does not appear that it was given up because of dangerous symptoms attendant upon its use.

With the discovery that quinidin is effective in the restoration of normal rhythm in many cases of auricular fibrillation, the effects of the drug, therapeutic and otherwise, have been the subject of much discussion. Unpleasant or dangerous symptoms attendant upon its use engage the active interest of any one who makes use of it. The untoward effects of quinidin range from the minor disturbances which we meet in the use of quinin and have named "cinchonism" through abnormalities of the cardiac rate, rhythm, or function, which are annoying but rarely alarming, to very severe symptoms of cardiac or respiratory failure associated with collapse, which have, in some cases, terminated in death.

In an early article upon the use of quinidin in

auricular fibrillation, Frey reported two cases with serious collapse and failure of the respiration; both recovered. Hewlett and Sweeney, after mention of the minor symptoms of intoxication, continue thus: "More serious symptoms may occur with or without warning. Alarming collapse has been recorded several times. One of Haass' patients, who had taken 2.8 grams (43 grains) of quinidin in 3½ days suddenly became pulseless and cyanotic and stopped breathing, after which a regular rhythm set in. Frey records two cases in which the respiration stopped. Several fatalities have been reported; in none of these was the drug clearly responsible for the death. Nevertheless, in view of the fact that quinidin may at times cause alarming symptoms or may lessen compensation, one hesitates to assert that it could not contribute to a fatal issue." Schwensen reports the case of a woman of 38, who died suddenly without the discovery at autopsy of any cause for her death. He adds: "It appears that many times the unpleasant effects of quinidin cannot be guarded against, that further our knowledge concerning the manner of effect is not sufficiently clear to enable us to ward off with certainty the unfortunate accidents. The dangers of the use consist, in the successfully treated cases, in the occurrence of emboli, in the refractory, in the possibility of collapse." Wolferth quotes Benjamin and Kapf, who report two deaths that were apparently due to quinidin. In one patient the pulse rose rapidly to 160 and the patient died of cardiac failure. In the second case a few hours after the restoration of normal rhythm there was sudden cardiac arrest followed by respiratory failure and death. The doses given were small. "In a third patient there was a pulmonary embolism after the restoration of normal rhythm. This the authors regard as due to the improved circulation whipping a thrombus from the heart to the pulmonary artery. This patient recovered." Wiechmann believes that "by no means is quinidin to be regarded as a harmless drug suitable for general use in ambulant practice. The dangers in its use, though seldom occurring, are too great to be overlooked. The greatest danger of quinidin therapy is manifestly afforded by the variable sensitiveness of particular individuals to quinidin. All who have used quinidin have met this."

On the other hand, numerous observers have

*Read at Annual Meeting of Illinois State Medical Society, Springfield, May 7, 1924.

reported series of cases in which no alarming symptoms occurred; one may easily dwell too much on the dangers of the drug and forget the possibilities of definite relief which its use offers to many subjects of cardiac disease. Hamburger and Priest in an extensive review express themselves thus: "One gets the universal impression that in spite of the accidents reported, quinidin is rapidly establishing a place for itself in modern cardiac therapy." Wolferth reported 12 cases in no one of which alarming symptoms were seen. Oppenheimer and Mann with 22 cases "had none of the alarming symptoms reported in the literature." Lewis says: "Some few patients exhibit a serious idiosyncrasy to quinidin. Of these I have no personal experience." Various French authors have recorded similar experiences.

Reference has already been made to the belief that quinidin may be responsible for an increased incidence of emboli. The fear of such an accident is widespread; the proof of such an increased incidence is not yet sufficient. Two years ago Levy stated that "the reported cases of embolism number 9; four died and one was left with a residual hemiplegia." In seven instances the embolism occurred within twenty-four hours after the resumption of normal rhythm. P. D. White believes that "there is a very real danger from embolism (cerebral, pulmonary or otherwise) and from auricular thrombosis, when the auricles resume their normal contraction after years of ineffective activity occurring in fibrillation." Lewis discussed this question at some length in his lectures in 1922. The explanation which he offers is based upon his anatomic investigations. "Fibrillation of the auricles predisposes to clotting in the auricular appendices. Ante-mortem thrombi are found in patients dying of heart failure more frequently if the auricles were fibrillating at the time of death. Thus in 76 post mortems on patients dying of chronic heart disease in which clots were especially sought, I found them in 8 cases out of 23 in which fibrillation was present in the last illness and in only 4 cases out of 53 in which the mechanism had been normal. But embolism due to the detachment of these clots does not appear to be more common in fibrillation than when the mechanism is normal. While fibrillation predisposes to clotting the normal action favors the detachment of such clots. In treating patients

with quinidin such facts should be borne in mind. . . . In cases in which there have been symptoms or signs of recent embolism the use of the drug invites disaster."

The work upon which we base our discussion of the untoward effects of quinidin has been done at the Cook County Hospital during the past 18 months. Such effects of quinidin may be classified thus: 1. Mild toxic symptoms (such as are familiar to us during the administration of quinin). 2. A rise in the ventricular rate. 3. Embolism. 4. Abnormalities of cardiac rhythm. 5. Sudden collapse.

We now have records of 83 patients who have received quinidin for some form of cardiac irregularity. Of these 77 had auricular fibrillation, five had premature contractions either auricular or ventricular and one had a paroxysmal tachycardia. In general the group is made up of unselected cases. Only two types of cases were rigidly excluded. We did not give the drug to patients with mental disturbances of whom there are, in the aggregate, many found among the patients with arteriosclerosis and patients with a history of prior embolism were not given quinidin. Some patients were rejected whose return to a fair degree of compensation under rest and digitalis had been very slow. The series consists of patients with long-established heart disease. Many of these individuals had already been the subjects of several attacks of decompensation; data concerning the possible time of onset of fibrillation were of no value; we could only determine the probable existence of cardiac disease over a long period of time in most of the cases. The quinidin was not given until the patient had regained a fair degree of compensation; this meant the absence of edema, ascites or hydrothorax, a ventricular rate below 90 and the ability to be up and about the ward without noticeable dyspnea. The last condition was not rigidly adhered to; a few of the patients were treated after compensation was restored, but before the patient had been allowed to get up. The administration of the drug was carried out in the following manner; on the first day of the treatment two doses of three grains (.2 gm.) each were given at intervals of four hours. These small preliminary doses were used to test the patient's susceptibility to the quinidin prior to the use of an effective dosage. Thereafter, larger doses were used; in single doses of from 3 grains (.2 gm.) to 6

grains (.4 grm.) each, from 15 to 30 grains (1 to 2 grm.) were given daily over a period of one week if no toxic symptoms appeared. The treatment was usually stopped at the end of one week if the desired result was not attained. The sulphate was the preparation used.

In 27 of the 83 patients one or more of the untoward manifestations mentioned above developed. Nine of the group had minor symptoms only. Four complained of headache without other symptoms; in three of these, attempts were made to carry on the treatment after stopping the quinidin for two or three days, but in all cases with the same result, the return of the headache. In one of these three sinus rhythm was restored, but the continued administration of small doses of quinidin to prevent recurrence of the fibrillation, which is a customary practice, proved impossible. The fourth patient developed some headache on the seventh day of his treatment and no endeavor was made to administer the drug further. One patient had "dizziness and spots before the eyes;" the quinidin was stopped for one day, then tried again, with the same effect. Another complained of headache, weakness and precordial pain; after an intermission of one day the treatment was resumed, but after one dose the patient refused her medicine; the next day the quinidin was taken and shortly thereafter sinus rhythm appeared. Two patients had ringing in the ears, dizziness and headache; one of these had a second course of quinidin upon a later admission to the hospital; this was interrupted by the appearance of a rapid ventricular rate. One, after 5.7 grams had been given within six days, complained of "dizziness, palpitation, diplopia, and dimness of vision." In only two of these nine patients did restoration of the normal rhythm occur. Our results are in agreement with those of most observers; the minor toxic effects of quinidin materially interfere with the use of the drug in sufficient quantities to obtain its full effects. In this group the amounts of quinidin which were given before the appearance of symptoms varied from 2.3 grams to 6.4 grams.

In 11 instances the quinidin was stopped because of the onset of a rapid ventricular rate. A rate of 130 was adopted as the limit calling for the withdrawal of the quinidin. In five of these cases, second attempts were made to give the quinidin. In one of this group failure of the second attempt occurred because of a mild col-

lapse. With the collapse the pulse was very rapid, but regular for several hours; the attack came on at a time of day when it was impossible to obtain instrumental demonstration of the nature of the cardiac rhythm. In this attack the patient became quite cyanotic and complained of precordial distress; at the same time the pulse was regular at a rate of 154 and the apical and radial rates were the same. To two patients digitalis was administered with the second course of quinidin. In one of these normal rhythm was restored; in the other the ventricular rate went once to 136 early in the course, then steadily declined and remained about 100 until the quinidin was stopped after eight days of treatment without success. The patient in whom the normal rhythm was restored returned to our service eight months later; fibrillation was present. He had noticed the return of his cardiac irregularity about two weeks prior to his return. Under quinidin alone, sinus rhythm was again restored; we were interested to note that early in the treatment the ventricular rate again became fast, going once to 128. One other patient showed symptoms of collapse with the onset of the rapid rate. This was a woman of 25 with an "old rheumatic heart;" shortly after the second of the two test doses (viz., after she had taken a total of 6 grains), she vomited and complained of headache and ringing in the ears, the ventricular rate rose from 100 to 140. In another case the quinidin was stopped because of a rate of 160. The patient complained of dizziness and weakness. At the same time he complained of pain in the right leg; the leg became "blue cyanotic and cold;" no pulse could be obtained at the ankle and the popliteal artery could not be palpated. Two days after the onset of the rapid rate the normal rhythm returned.

The case just cited presented the symptoms and signs of embolism, an event of particular interest in connection with quinidin therapy as has been shown by some statements from various authors quoted earlier. In six patients of our series the diagnosis of embolism was made. In one instance the patient came to the hospital with decompensation and an infection of the right foot which latter he dated to an injury received at his work some two weeks earlier. After compensation was restored and the foot had improved he was given a course of quinidin continuing over six days without result. Four

days subsequent to the withdrawal of the quinidin a pulmonary embolism occurred from which he died. The likely source of the embolus was the infected area upon the leg. It seems far-fetched to implicate the quinidin four days after its withdrawal. Three patients, during the course of the treatment, presented signs of pulmonary embolism. In none of the three did the normal rhythm return. In two there was no hemoptysis, raising some doubt as to the diagnosis. In the third case on the third day of administration of the quinidin after a total of 30 grains had been given there was a sudden onset of pain and burning in the left leg. The quinidin was stopped. Fourteen hours later the record reads: "Skin over external malleolus and dorsum of the foot is bluish red in color. Probable embolus." One week later it was noted on the chart: "Patient in serious condition this morning. He is expectorating bright red blood and complains of pain in both sides. There are a few rales in the right axilla. He probably has a pulmonary infarct." Two days later he died. The autopsy showed: "Embolic gangrene of the left leg and hemorrhagic infarcts of both lungs." The sixth case was that of an elderly woman in whom sinus rhythm had twice been restored by quinidin. Four days after the second restoration and while she was still taking quinidin in small doses fibrillation recurred. Cerebral embolism occurred two days thereafter.

Consideration of these cases leaves us with a feeling that the relationship of quinidin to the production of emboli is not proven. If we accept the theory that embolism occurring as a result of the use of quinidin is due to re-established auricular function, which is effective in dislodging particles of intra-auricular clots, we can not implicate the quinidin in these cases for in no one of this group did the embolism occur while sinus rhythm was present. Of 77 cases of auricular fibrillation treated with quinidin 23 resumed sinus rhythm; no embolism occurred among the patients restored to normal rhythm. We have gone over the charts of 100 cases of proven fibrillation treated in the County Hospital without quinidin during the past year; in 16 instances there was a history of embolism at some time in the course of the disease. In the group of patients with fibrillation treated with quinidin, 77 in all, there were six instances of embolism. While we admit that these figures taken alone

and without qualification, might be misleading, we believe that they are, taking all the evidence presented, of sufficient value to warrant the statement that the increased incidence of embolism attributed to the effect of quinidin is not yet proven.

In three cases of the series auricular flutter appeared; in two of these the flutter was succeeded by sinus rhythm; the third patient left the hospital with the flutter persisting. In one case given quinidin because of premature ventricular contractions the drug was stopped on the second day of the treatment because of the appearance of numerous premature beats with a regular bigeminus.

In two cases, which we have already described, there was a definite but not alarming collapse; in both recovery was prompt. Of another patient the record states that "two hours after the second test dose of three grains the patient became cyanotic and dyspneic and the pulse was weak." Digalen was given and within an hour the patient was much better. After four hours the patient was considered in "good condition;" four hours later she died suddenly. To what extent the quinidin may be blamed for the fatal termination is difficult to decide. We are reminded of a phrase already quoted from Howlett and Sweeney, "In none of these was the drug clearly responsible for the death." Sudden death is far from uncommon in cardiac disease and this is especially true of the cases of advanced disease which we see so frequently in the County Hospital. Yet in view of the reports of similar cases which have been published from time to time the course of this case is suggestive. In one case of the series there was a return to sinus rhythm after a single dose of three grains; in another, after the second test dose there was vomiting, headache and dizziness with a rise of the ventricular rate to 140; such experiences indicate unusual susceptibility to the drug upon the part of some individuals. In the use of quinidin due regard must be taken to avoid overdosage at the beginning of treatment. With small initial doses and careful observation the incidence of serious symptoms may be avoided. Quinidin will produce beneficial results in many cardiac patients; it may also cause unpleasant or alarming symptoms. Our task is to achieve success with the drug without the production of the serious by-effects. We can hardly hope to wholly avoid un-

pleasant symptoms. Where the individual susceptibility is tested and the administration of effective doses is begun with small doses, collapse will seldom occur; yet idiosyncrasy is of so much importance in the development of the severe manifestations of intoxication that quinidin should never be used, at least, in the type of cases we have described, unless the patient can be under very careful observation. Careless use of the drug may bring it into such disrepute that eventually many patients who might be benefited by its use will be denied that service. In agreement with Hamburger and Priest we believe that quinidin has a field of usefulness. Doubtless further study will define with greater precision the indications for its use as well as the limitations of the same. Wider experience should enable us to avoid the pitfalls yet obtain the benefits of quinidin therapy.

THE INJUSTICE OF THE INCOME TAX TO PHYSICIANS

Aside from the fact that the Federal Government places a heavy tax upon earned incomes of physicians, says the *Jour. of the Ind. State Med. Assn.* (March 15, 1924), a still greater injustice is done by refusing to make deductions from income for money actually spent in connection with medical work. Any sort of commercial enterprise, big or little, can deduct as expense any money expended in keeping up the business. A doctor, in carrying on his work and fitting himself to compete with others, is obliged to spend money in attending medical meetings and clinics, to say nothing of losing time for which he receives no compensation. It is decidedly unfair and makes the medical profession "the goat" in income tax exactions when these expenses are not deductible from income. Every doctor should be interested in changing this unfair attitude of the government in taxing members of the medical profession, and to that end we suggest that each and every member of their State Medical Association write a letter of protest to the senators and congressmen of their state concerning the unfair treatment we are receiving. —*American Medicine*, New York.

Society Proceedings

ADAMS COUNTY

Meeting of November 10, 1924

The meeting was called to order by the President, Dr. Warren Pearce. There was a total of 31 present, including 26 members.

The Secretary made a motion that the minutes of the October meeting as published in the November BULLETIN be approved. Seconded and carried. The Secretary reported the progress that had been made by the committee that was investigating the telephone

exchange proposition. Dr. Knox made a motion that the report of the committee be received and continued. Seconded and carried. Dr. Pearce reported the progress that the Convention Committee was making. At this time the Chair gave permission to Mr. Elmer Lummis, Secretary of the Chamber of Commerce, to address the Society. Mr. Lummis stated that the Chamber of Commerce was anxious to cooperate with the Adams County Medical Society in every way possible and invited more physicians to take out membership in the Chamber. The Secretary called the attention of the Society to the fact that there was an old Oliver typewriter among the Society's property that had not been used for quite a few years and that he had made inquiry as to the best price that could be secured for same if we desired to sell it would be \$10.00. It was moved, seconded and carried that the typewriter be sold for \$10.00 and the money turned over to the Treasurer of the Society. A bill from the Chamber of Commerce for dues from October 1, 1923, to October 1, 1924, was presented for payment. Dr. Nickerson moved that the bill be paid. Seconded and carried. Dr. E. B. Montgomery called the attention of the Society to the fact that Dr. Fox Rooney, a former President of the Adams County Medical Society, and the first woman physician licensed to practice medicine in Illinois, recently celebrated her 80th birthday. Dr. Montgomery made a motion that the Society send her a telegram congratulating her on this occasion. Seconded and carried. The application for membership in the Society of Dr. R. A. Harris, of Quincy, was read and turned over to the Board of Censors.

The Scientific Program consisted of a very interesting address by Dr. J. C. Krafft of Chicago, President-Elect of the Illinois State Medical Society, who spoke on the subject of "The Subnormal and Criminal Child." This paper was very fully discussed by Drs. Knox and Ericson and continued by Drs. Swanberg, Montgomery, Cohen, Stevenson, Pearce, Bitter, Wells, Anna Licsen and finally closed by Dr. Krafft. Miss B. C. Keller, Director of Publicity of Illinois State Medical Society, gave a very interesting address on, "What the Lay Education Committee of the Illinois State Medical Society is Doing." This was discussed by Drs. Swanberg, Koch, Williams, Nickerson, Wells and finally closed by Miss Keller. Dr. Nickerson made a motion that we express our appreciation to the speakers for coming to Quincy by giving them a rising vote of thanks. Seconded and carried.

A motion for adjournment was taken in order. Carried.

HAROLD SWANBERG, M. D.

Secretary.

COOK COUNTY

CHICAGO MEDICAL SOCIETY

Meeting of November 5, 1924

Synposium on Gonorrhea of the Genital Tract
 Pathology.....Russell D. Herrold
 Seminal Vesiculitis.....
Oswald S. Lowsley, New York, N. Y.
 Treatment of Gonorrhea.....Ed. Wm. White

Discussion
Rachelle Yarros, Harry Culver, H. S. Rolnick

Joint Meeting Chicago Medical and Chicago Tuberculosis Societies, Nov. 12, 1924

Symposium on Tuberculosis

The Present Status of the Treatment of Pulmonary Tuberculosis

The Disease in the Early Stages.....
Roswell Pettit, Ottawa, Ill.

The Far Advanced Disease.....Walter B. Metcalf
 Discussion (Limited to 8 minutes)

Home Treatment.....Robt. S. Berghoff
 Sanitarium Treatment.....Walter H. Watterson

Dispensary Treatment.....Ellis B. Freilich
 Treatment of Hemorrhage.....Ethan A. Gray

Treatment of Enteritis.....Donald P. Abbott
 The Feeding of Cod Liver Oil and Malt.....

.....Edwin B. Tuteur
 Specific Treatment.....John Ritter

Joint Meeting Chicago Medical Society, and Chicago Society of Anaesthetists, Nov. 19, 1924

Further Observations on Methods of Evaluating Surgical and Anaesthetic Risks. (Illustrated by lantern slides)..F. H. McMechan, Avon Lake, Ohio

The Insulin-Glucose Treatment of Surgical Shock and Non-Diabetic Acidosis.....

.....David Fisher, Milwaukee, Wis.

Discussion
 Dean Lewis, Prof. A. J. Carlson, William R. Meeker, Solomon Strauss.

New Anaesthetic Properties of Carbon Dioxide-Oxygen Mixture.....Ben Morgan

DiscussionKarl Meyer

PIKE COUNTY

The Pike County Medical Society met in Pleasant Hill, Thursday, Oct. 30, 1924.

There were twenty-nine physicians present, members and guests and an unusually interesting programme was presented. Guests, representing six different county societies were present and five papers were read and discussed, which for breadth of view, scientific research and careful preparation measured up above the standard of productions.

After a chicken dinner, the meeting was called to order in the basement of the Baptist church.

The Society took a firm and positive stand against voting for those who favor, or are engaged in the promotion of the Practice of Medicine by Lay Corporations. It voted its disapproval unanimously.

Dr. H. M. Camp of Monmouth, Secretary of the Illinois State Medical Society, read a paper on "Osteomyelitis," which was accorded unusual attention and elicited much approval. This was discussed by Drs. Black, Swanberg and Center. Dr. James H. Hutton of Chicago then read a very thorough and extremely interesting paper on "Thyroid Disturbances"; it goes without saying, of course, that this paper, from a famous internist, called forth ex-

traordinary attention. Discussion was participated in by Drs. McReynolds, Center, Andrea, Beirne, Black and others.

Dr. Ralph McReynolds of Quincy followed with a paper on "Pain in the Right Abdomen." The diagnostic methods were especially dwelt upon and any physician hearing this fine paper is better than ever qualified to draw diagnostic lines.

Dr. J. R. Pollock of Quincy had as his subject, "Urologic Examinations" which was very complete and showed much care in its preparation. He indicated his pleasure in being "back home" as he practised many years in Nebo.

Dr. W. W. Kuntz of Barry closed the day's programme with an excellent paper on "Poliomyelitis." He had several cases in the last year or two and drew freely on his clinical findings in these, as well as some antedating them by several years. His paper showed much study on the subject and was a fitting close for a day successfully spent.

Observation One: When a Secretary of a State Medical Society travels 280 miles round-trip by motor car and takes his father with him, who is also a physician and reads a fine paper, is there not encouragement to the members of the local County Society?

Observation Two: When a famous specialist in Internal Medicine rides two whole nights in a Pullman berth and spends a whole day in the county and reads a paper showing marked preparation is there any reason for the members of the County Society to be pessimistic about their organization?

"We will say there is not."

W. E. SHASTID,
 Secretary.

Marriages

LEON G. BRACKETT to Miss Bessie A. Jacobs, both of Waukegan, Ill., October 18.

TAYLOR W. FUNKHOUSER to Miss Hilda Funk, both of Danville, Ill., at Chicago, recently.

HILDEGARDE CATHERINE GERMANN to Mr. Frank Simnock, both of Quincy, Ill., November 1.

DANIEL FRANK MILAM, Chicago, to Miss Mary Louise Wilson of Winchester, Ky., October 25.

PHEBE LORENA PEARSALL, Moline, Ill., to Mr. Conrad C. Block of Aurora, Minn., October 28.

SAMUEL WATSON RAMSAY to Miss Lucile Dorothy Baker, both of Chicago, October 25.

EDWARD ALBERT ROLLING to Miss Celia Walsh, both of Chicago, November 5.

DEAN FIELD STANLEY, Decatur, Ill., to Miss Beatrice Weyh of Minneapolis, October 4.

HENRY C. HELFORD to Miss Julia C. Anschicks, both of Ottawa, Ill., August 11.

FRANKLIN G. WESTCOTT, LaSalle, Ill., to Miss Pearl Searle of Indianapolis, August 23.

Personals

Dr. Joseph K. Narat has been appointed associate in surgery at Loyola University.

Dr. Benjamin H. Breakstone will speak on "The Abuse of Medical Charities" before the Proletarian Forum, Sunday, December 21.

Dr. Julius Grinker, Chicago, has returned from four months' pleasure and study trip through Europe, having done most of his studying in Vienna.

Dr. Herbert Wright, Berwyn, has been appointed county health officer of Cook County.

Dr. Harry Frey, city physician, Rock Island, has been elected chairman of the board of health of that city.

Dr. Ethel M. Hayes, Toronto, Canada, has been appointed resident physician for the Decatur and Macon County Tuberculosis Sanatorium.

Dr. Alexander P. Robertson, Alton, has been elected president of the Alton Medical Society and Dr. Oria O. Giberson, Alton, vice president.

Dr. Walter G. Reineking, medical director and superintendent of the Rockford Municipal Sanitarium, has been reelected president of the Rockford Health Council.

At the seventy-eighth annual meeting of the Aesculapian Society of Wabash Valley, Paris, Dr. Nicholas C. Iknayan, Charleston, was elected president; Dr. Henry F. Beck, Danville, vice-president, and Dr. Theodore N. Rafferty, Robinson, secretary.

Dr. James W. Pettit, Ottawa, was reelected president of the Illinois Tuberculosis Association at the recent annual convention in Decatur. Drs. Lewis C. Taylor, Springfield, W. C. Reineking, Rockford, and Cecil M. Jack, Decatur, were elected first, fourth and fifth vice-presidents, respectively, and Mrs. Frank P. Auld, Shelbyville, secretary.

Dr. John I. Hunter, professor of anatomy, University of Sydney, Sydney, Australia, lectured under the joint auspices of the department of anatomy, University of Chicago, and the Institute of Medicine of Chicago, in the Harper Library, November 10, on "The Anatomy and Physiology of the Sympathetic Nerve Supply of Striated Muscle."

Dr. Frank Smithies, professor of medicine, University of Illinois School of Medicine, Chicago, gave a diagnostic clinic before the Sanga-

mon County Clinical Association, at St. John's Hospital, Springfield, November 6, and in the evening addressed the Sangamon County Medical Society on "Results Following Non-Surgical Management of Peptic Ulcer by the 'Physiologic Rest Method.'"

Under the joint auspices of the department of physiology, University of Chicago, and the Institute of Medicine of Chicago, Dr. W. Einthoven, professor of physiology, University of Leyden, and originator of the string galvanometer, gave a public lecture on "The Electrical Changes in the Beating Heart" at Kent Theater, University of Chicago, November 12.

Dr. Wilson Ruffin Abbott, who for the past three years has been medical director of U. S. Veterans' Bureau Hospital No. 55, Fort Bayard, N. M., and lately transferred to Oteen, N. C., another of the Government's largest tuberculosis hospitals, has resigned, and resumed private practice in Chicago. He has taken over the practice and office of his late friend and associate, Dr. O. W. McMichael.

Dr. William O. Krohn sailed from San Francisco on November 22nd for Honolulu, Japan, China, Manila, East Indies and on around the world. The trip includes about two months of investigation in the hitherto unexplored portion of Dutch Borneo. Dr. Krohn expects to be absent from Chicago for at least six months.

News Notes

—The November meeting of the Chicago Council of Medical Women was held Tuesday, November 25, at 8 P. M., at the American College of Surgeons, 40 East Erie Street.

PROGRAM

1. Maternal and Infant Mortality Due to Obstetric Hemorrhage.....Effa V. Davis
 2. Hemorrhage in Abortion...Clara Gottschalk
 3. Hemorrhage in Placentae Previa.Helga Rund
 4. Accidental Hemorrhage..Bertha Van Hoosen
 5. Post-partum Hemorrhage.....Otilie Zelezny
- Discussion opened by Louise Acres and Vesper Shaffer.

Obstetric Practice in China.....
.....Emma Martin, Peking, China

There will be no meeting in December, but in January the study of hemorrhage will be continued, consisting of a symposium on hemorrhage as related to surgery:

—Dr. Edgar Allen Hall, late of Glasford, Illinois, left a well equipped office, well located. Details can be secured from Mrs. E. A. Hall.

—The Oak Park Hospital, Oak Park, has obtained a loan of \$100,000 to complete its nurses' home.

—It is reported that a \$75,000 hospital building will be erected at Libertyville.

—Bids were taken about November 15 for the proposed \$250,000 addition and alterations to the Presbyterian Hospital.

—Ten medical candidates won seats in the lower house of the Japanese government at the recent election.

—According to the state department of health, the number of cases of diphtheria in Illinois has risen from an average of sixty-five a week in July to an average of 125 a week at this time. Four hundred children in the state have died of diphtheria this year.

—At the November 25 meeting of the Chicago Council of Medical Women, at 40 East Erie Street, the studies of hemorrhage will be continued, and Dr. Emma Martin, Peking, China, will talk on obstetric practice in China.

—A corporation calling itself the Physicians and Surgeons Institution of Chicago is contemplating the organization of a diagnostic institute, including the erection of a large building with hospital beds and complete laboratory equipment. The facilities, it is announced, are to be placed at the disposal of all qualified physicians and surgeons. A permanent staff of consulting specialists also is to be available for advice in special cases. The temporary organization includes Drs. Carl Beck, chairman; Edward H. Ochsner, secretary; Bruce King, counselor, and Mr. George Walters, director.

—At the twenty-fifth anniversary of the Chicago Laryngological and Otological Society, Auditorium Hotel, December 1, reminiscences of the first ten years of the society will be given by Drs. Frank Allport, William A. Evans, Otto T. Freer, Thomas M. Hardie, Jacques Holinger and Otto J. Stein; of the last fifteen years, by Drs. Albert H. Andrews, Joseph C. Beck, Elmer L. Keyon, Charles M. Robertson and George A. Torrison. Dr. George E. Shambaugh will speak on "The Future of the Society."

—At the request of the city board of health, the Kankakee Medical Society held a special meeting, November 7, to consider the scarlet

fever epidemic in that city. Following a general discussion, the society recommended, it is reported, that:

1. Full publicity be given the epidemic in local papers, that the community may know that scarlet fever is increasing and out of control.

2. Parochial schools provide a full time graduate nurse to look after their 1,500 children.

3. A committee of three members be appointed to act with the city board of health in checking the epidemic.

4. Parents should be informed that scarlet fever is very contagious, often fatal, and frequently maims for life, and unless the parents honestly cooperate in maintaining strict quarantine and helping the board of health, all efforts are futile.

5. When a child has sore throat, fever, rash of any kind, a physician should be called at once.

Deaths

JAMES SYLVESTER ANTLE, Utica, Ill.; Chicago College of Medicine and Surgery, 1911; aged 36; died, October 27.

FINIS E. BOZARTH, Emma, Ill.; Medical College of Evansville, Ind., 1881; aged 69; died, October 4, at the Anna (Ill.) State Hospital, of arteriosclerosis.

EDGAR ALLEN HALL, Glasford, Ill.; Gross Medical College, Denver, Colo., 1898; aged 57; died, October 18, of paralysis.

HERBERT R. HAMMOND, Chicago; Rush Medical College, Chicago, 1894; a Fellow, A. M. A.; aged 55; died, November 2, at his home in Oak Park, Ill.; of tuberculosis.

GUSTAV W. KAUFMANN, Evanston, Ill.; St. Louis (Mo.) College of Physicians and Surgeons, 1890; a Fellow, A. M. A.; aged 63; died, October 21, of heart disease.

CARL LANGER, Chicago; Northwestern University Medical School, Chicago, 1892; a Fellow, A. M. A.; aged 58; died, October 30, at his home in Palos Park.

ELOIS OLIVIA RICHBERG, Chicago; Hering Medical College, Chicago, 1908; formerly professor of embryology at her alma mater; aged 75; died, October 7, of chronic myocarditis and cerebral hemorrhage.

MAX JASON SALAMSON, Chicago; Rush Medical College, Chicago, 1904; member of the Illinois State Medical Society; aged 56; died, October 31, of carcinoma of the stomach.

BRET L. VILNA, Cicero, Ill.; University of Illinois College of Medicine, Chicago, 1911; a Fellow, A. M. A.; clinical assistant surgeon, Northwestern University Medical School, Chicago; formerly on the staffs of the Wesley Memorial Hospital, Chicago, and the West Suburban Hospital, Oak Park; for seven years health commissioner of Cicero; aged 38; died, November 3, following cholecystectomy.

INFANT DIET



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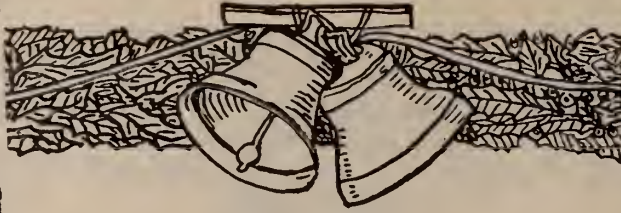
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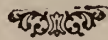
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Book Reviews

THE MEDICAL CLINICS OF NORTH AMERICA (issued serially), one number every other month. Volume VIII, Number II (September, 1924, Chicago Number). Octavo of 273 pages and 24 illustrations. Per clinic year (July, 1924, to May, 1925), paper, \$12.00; cloth, \$16.00. Philadelphia and London: W. B. Saunders Company.

The contributors to this number are Drs. Abt, Brams, Byfield, Carr, Cornell, A. R. Elliott, Friedman, Gerstley, Hamill, Portis, Williamson, etc.

LECTURES ON PATHOLOGY. By Ludwig Aschoff, M. D., with 35 illustrations. New York: Paul B. Hoeber, Inc., 1924. Price, \$5.00.

This book gives the lectures in the spring of 1924, in part, as the Edward G. Janeway lectures of the Mt. Sinai Hospital in New York, the Lane lectures in the Leland Stanford Medical School in San Francisco, the Osler Memorial lecture of the County Medical Association in Los Angeles and a Harvey lecture in New York.

CHEMISTRY IN INDUSTRY. Edited by H. E. Howe. New York: The Chemical Foundation, Inc. Price, \$1.00.

Volume I written by twenty-one prominent men in twenty-one separate industries. It is a cooperative work intended to give examples of the contributions made to industry by chemistry.

ANESTHESIA FOR NURSES. By Colonel William Webster, M. D. Illustrated. St. Louis: The C. V. Mosby Company, 1924. Price, \$2.00.

In this work the author attempts to present to the nurse, in concise form, the essentials of anesthesia, from the nurse's standpoint; in order that she may have sufficient knowledge of those anesthetics in ordinary use to understand somewhat of their application, the difficulties and dangers that may beset the path of those administering these powerful drugs and the methods of combating these difficulties.

A TEXT BOOK FOR MATERIA MEDICA FOR NURSES. By A. L. Muirhead, M. D., and Edith P. Brodie, R. N. Second edition. St. Louis: C. V. Mosby Company, 1924. Price, \$2.00.

The aim of this work is to provide the student with an adequate working knowledge of the subject in the simplest and briefest form. In the second edition new sections have been added, particularly in the preparations of solutions and dosage and the metric system has been emphasized throughout.

ABT'S PEDIATRICS. By 150 specialists. Edited by Isaac A. Abt, M. D., Professor of Diseases of Children, Northwestern University Medical School, Chicago. Set complete in eight octavo volumes, totaling 8,000 pages, with 1,500 illustrations and separate index volume free. Now ready; Volume IV containing 1,271 pages, with 271 illustrations. Philadelphia and London: W. B. Saunders Company, 1924.

Cloth, \$10.00 per volume. Sold by subscription.

The previous volumes of this work have been extensively reviewed in the JOURNAL. This volume deals with diseases of the pleura, lung surgery of the thorax, mediastinal tumors. All told there are forty chapters and exhaustive index.

OPERATIVE SURGERY. Covering the operative technic involved in the operations of general and special surgery. By Warren Stone Bickham, M. D., F. A. C. S. Former Surgeon in charge of General Surgery, Manhattan State Hospital, New York, former Visiting Surgeon to Charity and to Touro Hospitals, New Orleans. In six octavo volumes totaling approximately 5,400 pages, with 6,378 illustrations, mostly original and separate Desk Index Volume, Volume V containing 880 pages, with 1,118 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$10.00 per volume. Sold by subscription only. Index volume free.

The contents of Volume B cover operations upon the colo-rectoanal tract, operations upon the kidneys and suprarenal bodies, operations upon the uretras, bladder, male urethra, penis, scrotum, testicles, operations upon the structure of spermatic cords, etc.

DEVELOPMENTAL ANATOMY. A text book and laboratory manual of embryology. By Leslie B. Arey, Professor of Anatomy at the Northwestern University Medical School, Chicago. Octavo volume of 433 pages, with 419 illustrations, many in color. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$5.50 net.

This book was prepared for medical students and others whose interests center primarily on man and mammals. It contains three sections. The first part treats of the early stages of development, the second traces the origin and differentiation of the human organ systems. The third division comprises a laboratory manual for the study of chick and pig embryos.

HUMAN CONSTITUTION. A consideration of its relationship to disease. By George Draper, M. D., Associate in Medicine at Columbia University, New York City. Octavo of 345 pages, with 208 illustrations and 105 tables. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$7.50 net.

This volume is the first of a series planned to consider the whole subject of human constitution. This book attempts first to present to the physician a dependable method for studying morphology; second, to point out the inadequacies of the existing observational and descriptive procedure, and, third, to emphasize the interest and importance of the study of the human constitution.

A MANUAL OF DISEASES OF THE NOSE, THROAT AND EAR. By E. B. Gleason, M. D., Professor of Otology in the Medico-Chirurgical College Graduate School, University of Pennsylvania. Fifth edition, thoroughly revised. 12mo of 660 pages, 212 illustrations. Philadelphia and London: W. B. Saunders Company, 1924.

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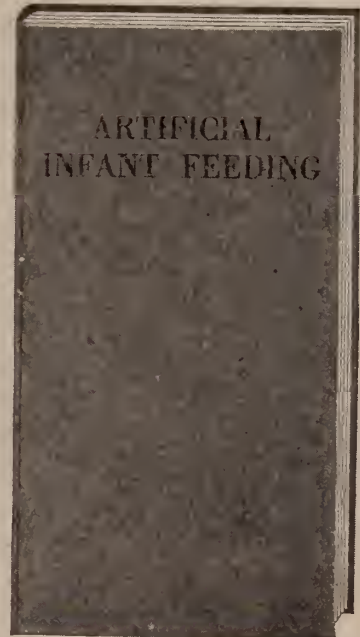
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Book Reviews

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delphia and London: W. B. Saunders Company, 1924. Cloth, \$4.00 net.

The fourth edition has been carefully revised and matters pertaining to diagnosis and treatment have received careful consideration. The technic of the more common operations have been revised and made as clear as possible.

Considerable new matter has been added to the descriptions under some of the illustrations. This is especially true of instruments, in the endeavor to include in the description those of a similar kind and state the advantages and disadvantages of each type.

ESSENTIALS OF PRESCRIPTION WRITING. By Cary Eggleston, M. D., Assistant Professor of Pharmacology, Cornell University Medical College, New York City. Third edition, revised. 32mo of 146 pages. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$1.50 net.

This revision of the book has been based upon further experience of its practical use by students. A few changes of importance have been made in the discussion of the Latin grammar and brief sections have been added on the writing of percentage prescriptions, etc.

THE PRACTICE OF PEDIATRICS. By Charles G. Kerley, M. D., formerly Professor of Diseases of Children, New York Polyclinic Medical School and Hospital,

(Continued on Page 25)

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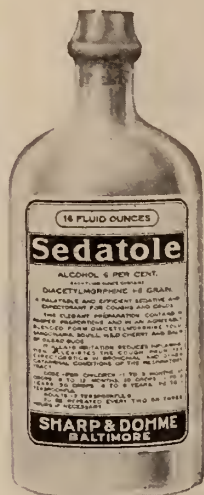
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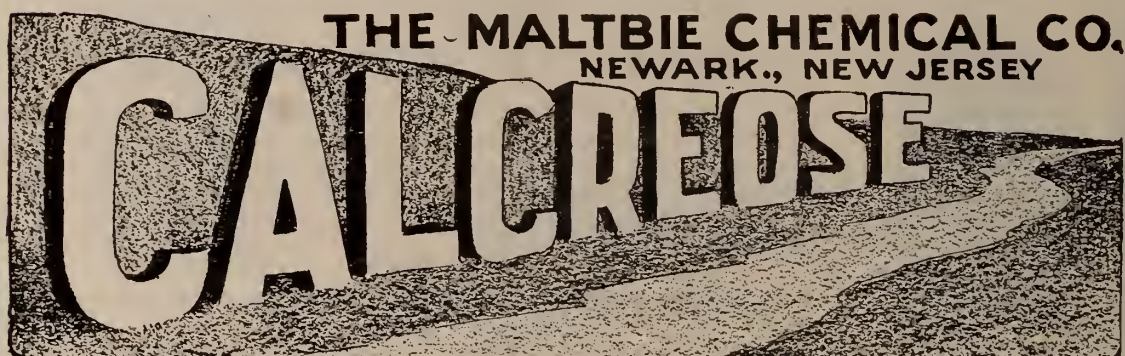
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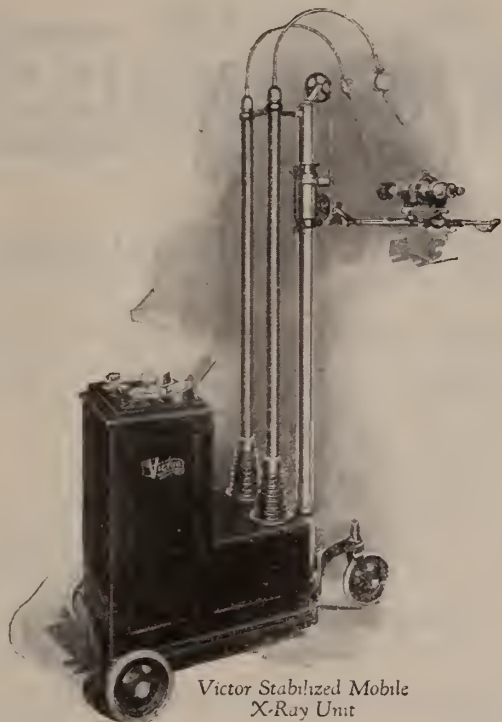
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(Continued from Page 14)

and Gaylord W. Graves, M. D., Associate in Diseases of Children in the College of Physicians and Surgeons, New York City. Third edition, revised and reset. Octavo of 922 pages, 150 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$9.00 net.

This edition has been largely rewritten, with the addition of much new material both in the form of text and illustrations. In particular the additions comprise consideration of the following subjects: Growth and development, methods of infant feeding, developmental gastro-intestinal abnormalities, rickets, asthma, pneumonia, influenza, endocrine disorders, nephritis, etc.

DISEASES OF THE HEART. By Dr. Henri Vaquez, Professor of the Faculty of Medicine of Paris; translated and edited by George F. Laidlaw, M. D., Associate Physician to the Fifth Avenue Hospital, New York City; introduction by William S. Thayer, M. D., Johns Hopkins Hospital, Baltimore, Md. Octavo volume of 743 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$8.50 net.

This book was written for the general practitioner by the foremost cardiologist of France. The book is especially rich in radioscopic studies. To radioscopy of the heart the author has added his latest observation made together with Bordet and the new table of the diameters and the separate auricles and ventricles.

MANUAL OF PSYCHIATRY. For the medical student and general practitioner. By Paul E. Bowers, M. D., Examiner in Lunacy, State of California; Lecturer in Neuropsychiatry, Post-Graduate Medical School of the University of California, Los Angeles. Octavo volume of 365 pages. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$3.50 net.

It is the purpose of this volume to give a comprehensive and systematic outline of the field of psychiatry and to afford the student and the general practitioner a reference handbook to which they can turn for definite, detailed information upon the different aspects of mental medicine.

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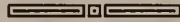


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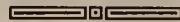
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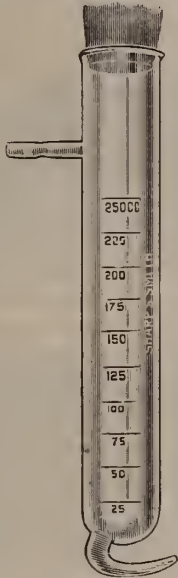
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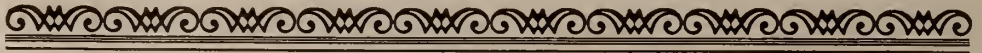
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